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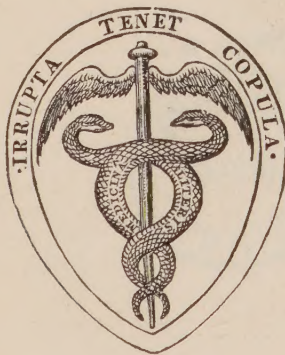
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TO

MONS. RICORD,

SURGEON TO THE VENEREAL HOSPITAL, PARIS,

AND AUTHOR OF THE

“ Traité Pratique des Maladies Vénériennes ; ou, Recherches critiques et expérimentales sur l’Inoculation appliquée à l’étude de ces Maladies,”

THIS LITTLE WORK

IS, BY PERMISSION, DEDICATED,

WITH EVERY SENTIMENT OF ESTEEM AND RESPECT,

BY HIS OBLIGED AND FAITHFUL

FRIEND AND SERVANT,

THE AUTHOR

PREFACE.

THE modern researches on Syphilis, its complications and consequences, and the improved modes of practice which have been the result of such investigations in this country, and on the continent, have, as yet, been made known to the public only in detached portions, and that chiefly, if not altogether, through the medium of the periodical medical literature of the day.

Much attention to the subject has impressed me with a conviction, that a work containing the *result* of modern experience, would not be unacceptable to the profession; whilst, to the junior part of it, such a publication might be exceedingly useful.

Usefulness, and not originality, has been the great object I have consulted in composing the present work. It contains little, and I believe no theoretical matter, except perhaps the account of Mons. Ricord's researches "On Inoculation," in reference to Syphilis. I originally intended, and to the best of my ability I have carried out my intention, that it should contain

only the result of generally received modern experience on the treatment of Syphilitic Diseases.

I have adopted no party in the question; as will be perceived by a perusal of the work, not agreeing exclusively with the mercurialists, on the one hand, or condemning the remedy *in toto* on the other, in accordance with the principles of the physiologic school, or the partisans of the simple treatment. I have endeavoured to hold out to the confidence of the reader those plans of treatment, and those only which are calculated to cure his patient the most speedily and with the greatest safety.

The opinions and practice of Wallace, Desruelles, Cullerier, and more particularly Mons. Ricord, will be found fully described in the following pages—whilst, at the same time, the result of my own experience has been added to the weight of theirs. In addition to this the value of many new remedies now much employed in the treatment of Syphilis has been discussed, and numerous forms for their administration given.

142, SNOW-HILL, BIRMINGHAM;

September 20, 1839.

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THE MODERN TREATMENT OF SYPHILITIC DISEASES.

SECTION I.

Of the Simple Treatment of Syphilitic Diseases.

1. VARIOUS plans of treating syphilis without mercury have been practised by surgeons in all parts of the world prior to the time of Broussais, although that treatment, which is denominated at the present day "simple," dates its origin more immediately from the doctrines of that pathologist. Broussais, considering syphilis as a mere irritation without any specific character, promulgated in 1815 the following opinions on its nature and treatment :

2. "That syphilis is an irritation affecting the exterior of the body. That it is at first a local disease, but becomes subsequently constitutional ; that to prevent the latter, the local disease must be treated by antiphlogistics, more particularly by frequent and full local bloodletting."

3. "That confirmed or constitutional syphilis may

be cured by abstinence and an antiphlogistic treatment; but this method being tedious, mercury and sudorifics are generally preferred. That mercury and sudorifics cure syphilis by producing revulsion upon the exhalant capillaries:" hence, by Desruelles* and others, this is termed the "revulsive treatment."

4. "That the remedies termed antisymphilitic should be administered internally with caution, otherwise they commonly produce gastro-enteric affections, which exasperate the primitive disease; the revulsive action of the remedies is thus prevented, irritation is set up in the viscera, which terminates ultimately in their disorganization.

5. "When the remedies termed antisymphilitic have produced gastro-enteric irritation or inflammation, and the syphilis is not cured, the latter only amends with the affection of the stomach and bowels, and a long perseverance in a strict antiphlogistic regimen. If the abdominal viscera are disorganized or the patient too much weakened, the cure is impossible.

6. "Mercurial preparations applied topically to external syphilitic irritations or sores exasperate them always when they are intense, irritable, or inflamed. They cure them only when they are indolent, by opposing irritation to irritation. This fact is also applicable to all visceral inflammations, &c.

7. "Scrofulous subjects are more difficult to cure of syphilis than others. Those predisposed to visceral irritations should, when suffering from venereal affections, be treated on the antiphlogistic plan, both

* *Traité des Maladies vénériennes.* Paris, 1836.

externally and internally. If treated internally by mercurials the viscera are excited, and sometimes the syphilis itself is not cured."

8. Such are the principles laid down by Broussais, for although the non-mercurial treatment of syphilis had been occasionally resorted to, it was left to Broussais to lay down the simple treatment as a system. In the aphorisms of this pathologist many opinions are promulgated in reference to syphilis, which are contradicted by all ancient and modern experience, and even by the most candid of the followers of the physiologic school. We do not consider syphilis a mere irritation, independent of any specific character, as the researches of Ricord and others amongst the moderns sufficiently prove. It is a specific disease, inasmuch as many of its forms may be propagated by inoculation, and thus diseases of a precisely similar character produced.* It is a disease of irritation, inasmuch as all venereal sores are accompanied by a greater or less degree of inflammation, the intensity of this inflammation, and consequently the violence of the disease, depending on the constitution of the patient, the circumstances in which he is placed, his habits of living, and the local treatment of the syphilitic sore.

9. The simple treatment is directed towards the removal of all the local and constitutional irritation which accompanies a venereal sore, by which the sore itself in many instances heals and the disease is cured.

* See Ricord, *Traité pratique des Maladies vénériennes*. Paris, 1838.

Where it becomes necessary to employ mercury, it will invariably be found advantageous to administer the remedy in accordance with the principles of the simple treatment. This proposition is illustrated by the practice of the late Dr. Wallace of Dublin, who states that the most appalling forms of syphilis which he has met with have resulted from the injudicious application of mercurial preparations to venereal sores in a state of irritation or inflammation.

Of the Simple Constitutional Treatment of Syphilis.

10. In all venereal affections, whether primitive or secondary, the diet should be light and unstimulating, and directly proportionate to the degree of irritation accompanying the disease, to the age and idiosyncrasy of the patient. It is difficult (says M. Cullerier) to conceive why the regulation of diet so important in all other diseases, whether acute or chronic, should have been totally neglected in the management of syphilis. The patient should be placed upon the lowest possible diet when the local venereal affection is accompanied by much inflammation or irritability, when the affections are numerous in the same individual, if the disease be constitutional, the principal viscera in a state of excitement or irritability, and the subject young and vigorous. This regimen should be still more closely adhered to if the affection occur in spring or autumn, and is yet more strongly indicated if the patient be subjected to a mercurial course.* Desruelles recom-

* See Desruelles on this subject, op. cit. p. 249.

mends a milk diet if the patient be weak and the viscera unsound.

11. On this point no fixed rules can be laid down;* they must be dictated by the circumstances of the case, and call for the exercise of much judgment on the part of the practitioner. It may be easily conceived that the severity of the regimen must vary according to the constitution of the patient we have to treat. Some subjects are soon weakened or rendered irritable by abstinence, or quickly placed in conditions favorable to the action of remedies; others again are not so readily brought into such states; and in some instances it becomes necessary to resort to general bloodletting and the warm bath.†

12. In all local and constitutional venereal affections, our first duty should be to examine the general condition of the system of the patient, to ascertain the state of the viscera of the chest and belly, and to place him upon such a regimen as may be most likely to diminish the irritability of the system generally or of any one organ in particular. The bowels should be kept free by the exhibition of mild unirritating purgatives, suited to the gastric constitution of the patient.

13. General bleeding should be employed as a preparatory measure, when the circulating system of the patient is too active, or the inflammation accompanying the local disease acute. Local bleeding may be resorted to, with advantage, in almost all instances

* Plus vous nourrissez les corps impurs, plus vous leur faites de mal.

† Lucas Championnière, *La Thérapeutique de la Syphilis*, p. 115.

of primary venereal sores, and in many forms of constitutional syphilis. In these instances the leeches must be applied in the centre of the sore, and not at its edges, with the view of preventing the extension of disease by the inoculation of the leech bites.

14. The simple treatment attaches much importance to the position of the patient, in the cure of venereal affections; hence, whenever it is practicable, the patient should be confined to bed. This has the advantage of keeping the skin warm, and promoting perspiration, points of great importance, whilst the recumbent position favours the return of blood upwards through the pelvis, and tends to mitigate any inflammatory action or tendency. This position also renders the application of dressings much easier, and places the patient in a more advantageous condition for the action of remedies. In buboes, posthitis, acute or subacute gonorrhœa, ulcers on the genitals, vegetations about the anus, affections of the skin, &c., the recumbent position in bed, if not indispensable, most materially facilitates the cure.

15. The warm bath is a modifying agent of great utility. In a great variety of venereal affections the patient may use it daily with advantage. The hip-bath, in many cases, from the situation of the venereal affection, may supersede the necessity of immersing the whole body. The patient may be directed to remain in the bath an hour, or two, or more, according to circumstances. In the French hospitals, baths medicated with gelatin, starch, bran, or the decoctions of poppy, henbane, or belladonna, are employed. General and local bleeding, low diet, aperients, the warm bath, with repose in the recumbent position,

constitute the general simple treatment of syphilis; and so efficacious are these means in mitigating the irritations accompanying primitive or secondary syphilitic affections that, of themselves, they frequently work a cure. Where a mercurial, or other specific treatment is adopted, the simple general treatment, pursued at the same time, will be found most materially to assist it, whilst by keeping the constitution in a state free from irritability, it prevents the accidents to which a mercurial course frequently gives rise.

*Of the Simple, Local, or Surgical Treatment
of Syphilis.*

16. In this section we shall indicate some general rules for the surgical treatment of syphilitic affections, considering the particular treatment with each separate form of disease. The best antisiphilitic (says Cullerier) is frequently a dressing methodically made, it being in vain that we attend to the constitutional treatment of our patient alone; at the same time irritating or neglecting the local disease.

17. Syphilitic sores should be daily cleansed, by a soft sponge and tepid water, from the discharges which their surfaces secrete; this should be done without creating any irritation or pain, and care should be taken not to disturb any parts undergoing a process of cicatrization. Syphilitic ulcers, perhaps, more than any other kind, are liable from slight causes to become irritable, and assume a phagedenic character. The dressings to these ulcers should be of the simplest kind; mild astringent and anodyne solutions

generally succeed better than the various kinds of ointments, particularly those which contain mercury. The testimony of all modern authors is decisive upon this point. Ricord's aromatic wine, with or without tannin, appears to be one of the most generally useful applications to primary syphilitic sores, particularly adapted to those which are bad conditioned, dark, and disposed to become phagedenic from the want of a reparative power in the tissues where they are seated.

18. In syphilitic affections attended by much inflammation, local bleeding, so extensively employed in the French venereal hospitals, is of great utility. In the case of simple primary sores, the leeches must be applied in the centre of the ulcerations, and not round or at the edges of the sore; this mode of local bleeding has sometimes the happiest influence over stationary or slowly spreading sores, with callous and red edges, which resist every other mode of treatment, even a mercurial course. I have seen these sores in the throat and upon the tongue, of a purely venereal character, remain stationary, and even appear disposed to spread under the full influence of a mercurial course, heal in a few days from the repeated application of one or two leeches in their centre.

19. Local bleeding may be employed in primary or secondary ulcerations on the genitals, upon the tongue, in the throat, nasal fossæ, or other parts of the body. It may be frequently resorted to with advantage in sinuses remaining after the opening of buboes, the sides of which remain hard and assume little disposition to heal; leeches placed in the course of these sinuses are sometimes very beneficial in removing the irritation and hardness, and favouring the

process of granulation. In these cases, as in those of simple sores, the leeches must be applied in the course of the sinus, not on its outside, the latter mode is of little efficacy, whilst the former frequently disposes an old sinus to close, which has resisted all the usual routine of detergent ointments and stimulating injections. If the course of the sinus be hot, tender on pressure, and painful, the existence of inflammatory irritation is clear; and local bleeding, practised in the manner I have described, is sure to be beneficial. Local bleeding is, however, by no means to be indiscriminately employed in venereal ulcers, &c. Ricord generally prefers, in diseases of this kind, attended with much inflammation, emollient and narcotic fomentations, poultices of bread and milk or linseed, with the warm bath, either alone or with the addition of mucilage or gelatin.

20. In inflammations of the testicle and of the glands of the groin, leeches are more efficaciously placed directly upon the most painful part of the tumour, than in the course of the spermatic vessels, or around its base. M. Gama, chief surgeon to the military hospital of Val de Grace, observing the comparatively trifling effect of local bleeding on buboes, &c., as it is generally employed, practises with more success what he terms “saignée permanente.” Instead of applying a large number of leeches at once, as twelve, fifteen, or more, he uses four or six, and when the bleeding begins to diminish, reapplies the same number, so as to keep up a constant flow of blood from the part for many hours.

21. Irritation is frequently kept up by the mere contact of two inflamed surfaces, notwithstanding an

appropriate treatment in all other respects may be methodically practised; hence, certain forms of superficial primary syphilis, or of balanitis,* and posthitis,† are kept up by the contact of the glans penis and prepuce, and some gleans protracted from the contact of the two sides of the urethra. Fricke, of Hamburg, first established this fact, which has been verified in the practice of Desruelles and Ricord; the latter has frequently succeeded in curing obstinate gleans by introducing a small portion of lint into the urethra, dry or soaked in a mild astringent solution. The prepuce and glans, when either is the seat of irritation or ulceration, should always be separated by the introduction of fine linen, or lint. The continued contact of the glans and prepuce, when inflamed or ulcerated, frequently occasions their total or partial adherence.

22. Parts affected with syphilis which are deeply seated, or covered by folds of integument or mucous membrane, should be daily cleansed by tepid anodyne or astringent injections, according to the character of the accompanying irritation. These injections should be practised quietly, without force, and without creating pain.

23. Abscesses should be opened early, more particularly if the presence of matter occasions much pain, or take place under fasciæ or tendinous expansions, where

* Balanitis, from *βάλανος*, glans; inflammation of the glans penis.

† Posthitis, from *ποστή*, preputium, inflammation of the prepuce; the term balano-posthitis, where both glans and prepuce are inflamed, is employed by some modern writers on syphilis.

the pus cannot readily make its way to the surface. Long and deep sinuses should be laid freely open, or if it be practicable, a counter-opening may be made.

24. All parts in a state of natural or acquired strangulation which offer impediments to the cure of syphilitic diseases should be quickly relieved; this becomes necessary in natural or acquired phymosis or paraphymosis. The circumstances which contra-indicate this practice will be mentioned under the article on the particular diseases themselves.

Of the Mercurial Treatment of Syphilitic Diseases.

25. It is not my intention to enter into any of the controversies respecting the mercurial or the simple treatment of syphilis, but merely in this place to point out the circumstances which modern experience has indicated for its employ; for although mercury cannot be considered in any measure as a specific against syphilis in any of its forms, still there are numerous cases in which it is the most powerful and certain therapeutic agent we can oppose to them.

26. Why is mercury to be employed in the treatment of syphilis? When is it to be employed? In what manner is it to be employed? What are the states of the constitution, and of the sore which are to guide us in pursuing its use or giving it up? And when is it to be discontinued? These are the practical questions which suggest themselves to us in reference to the use of mercury in venereal diseases, and to them we shall give the answers that modern experience has sanctioned.

27. Mercury is employed to facilitate the healing of a venereal sore, and to diminish the chance of secondary symptoms.* When (says Cullerier) the local applications before mentioned are insufficient to produce the cicatrization of a chancre, the patient must be placed upon a general mercurial treatment.† The rapidity of the complete cure of several varieties of venereal sores is enormously in favour of the mercurial treatment, whilst the number of secondary affections is, by it, much diminished.

28. Mercury may be used in the treatment of all primary venereal sores, though it is not necessary to their cure, nor is it used in the Parisian venereal hospitals,‡ when the sore heals under the use of topical applications and an antiphlogistic regimen, unless the healing of the sore leave behind it induration of the cicatrix.

29. Mercury is not to be used during the state of fever or local inflammation which is present during the first days of venereal ulcers, nor till our patient is prepared for it by low diet, aperient medicines, or local or general bleeding. When the fever and local inflammation or irritation which commonly attend primary venereal sores are removed, when the process of ulceration

* Wallace, on the Venereal Disease and its Varieties. p. 100. London, 1838.

† *Recherches pratiques sur la Thérapeutique de la Syphilis*, ouvrage fondé sur les observations recueillis dans le service, et sous les yeux de M. Cullerier, par Lucas Championnière. Paris, 1836.

‡ Ricord, *Traité des Maladies vénériennes*. pp. 578 et suivantes. Paris, 1838.

has stopped,* and the sore remains indolent under the use of topical applications, above all when its edges are elevated and hard, mercury may be employed with the full expectation of realizing its most beneficial results.

30. When a certain degree of induration accompanies a chancre, or persists after its apparent cure, Ricord has recourse to mercury, and, continues he, "as the mineral is frequently injurious in some other forms of syphilis so is it of use here." Cullerier employs mercury in the absence of fever and local inflammation, when the sore has become indolent, and puts on no disposition to heal under ordinary local dressings. Dr. Wallace resorted to mercury, in most cases of primary venereal sores, when the process of ulceration had been arrested by the nitrate of silver, or other caustics, when the sore had become indolent, or assumed a disposition to heal. This author, recognizing the grand principles above detailed, that we are not to employ mercury in the earlier stages of chancre, whilst the constitution and sore are irritable and are still suffering from the more immediate effects of the venereal poison, says "great mischief frequently results from the topical employment of mercury, as well as of other stimulants, during the stage of ulceration or destruction of primary syphilis, by producing morbid excitement, followed sometimes by indolent and sometimes by

* In certain varieties of phagedæna, Dr. Wallace thinks that mercury fully and freely employed, so as to bring the constitution as quickly as possible under its influence, is the most certain and efficacious mode of arresting the rapidly extending ulcerating process.—See his remarks on this subject, *op. cit.* p. 136.

irritable action, with their concomitants and consequences. The most appalling forms of this disease, which ever came under my observation, were caused by the injudicious application of the red precipitate or other powerfully stimulating dressings, and it has therefore long been a principle with me strictly to avoid all mercurial and stimulating dressings during the ulcerating stage of syphilis. It is also in general highly improper to administer mercury internally during this stage, for if used at this period it may, instead of producing a salutary and specific influence, increase the inflammation, or excite a state of irritable or indolent action, after which the system will become quite insensible to ordinary doses of this medicine ; and if under such circumstances larger doses of mercury be employed, a peculiar and complex state will most probably result, determined in its character by the combined influence of the disease, the remedy, and the constitution of the patient, a state in which mercury acts as a poison, or in other words not only aggravates all the symptoms, but perhaps excites a new train of peculiar morbid actions.”*

31. Mercury is employed either in the form of ointment by friction, or internally in various forms of preparation. Cullerier prefers employing mercury by friction in primary venereal sores ; he orders from a quarter of a drachm to a drachm and a half of mercurial ointment at each friction, leaving an interval between them of one, two, or three days, with the view of not irritating either the sore or the constitution, by bring-

* Op. cit. pp. 109-10.

ing the latter suddenly under the influence of the remedy. These frictions may be made upon the insides of the thighs or legs, in the inguinal region or popliteal space. Ricord frequently orders the frictions to the axillæ, and they are thus employed by Cullerier in certain forms of venereal ulcerations of the mouth and fauces. He relates the histories of two cases cured by mercurial frictions in this situation, which had resisted its employment on other parts. As an internal remedy, in the primary venereal ulcer, the proto-ioduret and cyanuret of mercury are preferred in the Parisian venereal hospitals as more certain in their effects, and less irritating than either calomel or the oxymuriate. The dose is from two to six grains a day, combined with opium, to which antimony may be added with advantage.

32. During the employment of mercury, the states of the sore, of the constitution, of the mouth and breath are to be carefully watched, since each of them may assume certain conditions which would render the further use of mercury injurious.

33. The state of the sore whilst the patient is taking mercury should be frequently examined, and topical applications suited to its condition employed. At one time it may require anodynes, at another astringents, or again slightly stimulating applications may become necessary. During the mercurial course also the diet should be mild and unstimulating, and the condition of the stomach and bowels carefully attended to. Dr. Wallace recommends the mastication and deglutition of grains of allspice or pepper during the day, and covering the abdomen with two or three folds of flannel. A nightly draught or pill of some preparation of

opium with capsicum* may be employed with advantage, even during the period the patient is using mercurial frictions; the former not only prevent those attacks of pain, griping, and diarrhœa which sometimes come on during a mercurial course, and materially retard the healing process, but they contribute directly to the therapeutic effects of the mercury.

34. It is from a want of attention to these circumstances, that persons are so frequently placed upon the mercurial plan without being cured. This arises from their neglecting the modifications of topical applications, and not observing the dietetic regimen suited to their state.

35. The condition of the sore is very frequently an indication of the effect of mercury upon the constitution, and points out clearly whether it is agreeing with the system or not. From this circumstance we recommend a frequent examination of the local disease during the time the patient is using mercury. "It will be found a most important rule in practice to omit all mercurial treatment whenever there appears an increase of inflammation or sensibility to arise in the local disease during the employment of mercury, for a

* R. Pulv. Opii, gr. j.
 Pulv. Capsici, gr. ij.
 Conf. Aromat. q. s. ft. Pil.
 Omni nocte sumend.

or,

R. Liq. Opii sedativ. ℥. xx. ad xxx.
 Tinct. Capsici, ℥. xxx. ad l.
 Aquæ Cinnamomi, ʒj. M.
 ft. Haust. h. ss.

perseverance in its use, under such circumstances, will almost inevitably tend to some form of destructive action, determined in its character by the constitution of the patient. In such cases we must have recourse to emollient and anodyne applications, purgatives, rest, abstinence, and diaphoretics, with or without narcotics, and as soon as the morbid actions which have supervened have been removed, mercury if necessary may be again resumed, to be suspended afresh in case of a return either of inflammation or irritability.”*

36. The state of the constitution as well as of the sore, demands great watchfulness during the administration of mercury for the cure of primary venereal sores. It is quite certain that venereal sores, which have resisted all other modes of treatment, daily heal under the use of mercury, whilst the remedy produces no sensible effect upon the economy either by causing salivation or mercurial fever. We therefore insist upon the principle enforced by Dr. Wallace, that the greater the degree of excitement or of deviation from the healthy condition of any of the functions which mercury produces, the greater is the danger of its action being followed by deleterious effects, or of its ceasing to influence in a salutary manner the symptoms of syphilis. It is from a knowledge of this fact that both Cullerier and Ricord attend so much to the condition of the general health during a course of mercury, by abstracting their patients from all causes of excitement.

37. It is not necessary that mercury should produce

* Wallace, *op. cit.* p. 119.

salivation in order that its benefits, in curing primary syphilitic ulcers, or diminishing the chance of secondary symptoms may be realized. What then are the rules to guide us in these circumstances? How long is our patient to be submitted to the use of mercury, and when is it to be discontinued? The healing of the sore, without a thickened condition of the cicatrix is our rule for the discontinuance of mercury. This remedy must be discontinued as soon as the traces of infection are no longer evident. Some patients are not easily affected by mercury, and their sores remain indolent even under its long continued use. In these cases it is well from time to time to lay aside the mercury and treat our patient on general principles, and again to have recourse to mercurial treatment under some other form, if the disease still continues obstinate.

38. We must not think of secondary symptoms after a sore has healed under the influence of mercury, nor prolong the treatment with a view of preventing them. Secondary symptoms appear after the fullest courses of mercury, and occasionally do not appear when mercury has been altogether abstained from.*

* These paragraphs, 37 and 38, embody the principles of the French civil and military venereal hospitals, and to me appear the most rational guide that can be given for the discontinuance of a mercurial course. Dr. Colles continues it a few days after all hardness of the cicatrix is removed, and thinks the mercurial treatment should be continued to the extent of moderate ptyalism for a month. Mr. Judd mentions, as the duration of the course, from twenty-five to thirty days. I am firmly convinced that the patient is as secure as he can be from secondary symptoms, by following the French rule, "to discontinue the mercury when the sore has healed, and all induration of the cicatrix has disappeared."

39. The state of the mouth should be carefully examined before resorting to a course of mercury; sometimes a stomatitis may be present before the administration of this remedy, and we might thus be deceived in its effect, mistaking the inflammation of the mouth, which was previously in existence, for one which is the result of mercury. It is quite certain that many morbid conditions of the mouth and breath so closely resemble those produced by mercury, that, without an examination of the mouth before resorting to a mercurial course, we might be led into great error.*

40. When the breath becomes fetid, and the gums tender, the mercury must be discontinued, or very much diminished in quantity. The patients should use slight astringent gargles, with mineral acids, and lozenges of the chloride of lime.†

41. M. Desruelles, surgeon to the military hospital of Val de Grace, having the charge of the venereal department of that establishment, and a partisan of the simple or physiological treatment of syphilis without mercury, entertains the following opinions as to its use,

* See Ricord's remarks on this subject, op. cit. pp. 627-8.

† Rx. Sodæ chlorid. solutionis (Beaufoy's).

Tinct. myrrhæ, āā ℥ ss.

Aquæ ℥ v. M. ft. garg.

R. Aquæ distillatæ, ℥ vij.

Aluminis et potassæ sulph. ʒ ij.

Mellis rosarum, ℥ j. M. ft. garg.—RICORD.

Lozenges of Chloride of Lime.—Rx. Calcis chlorid. ʒ iv.; sacchar. alb. ℔ j.; amyli, ℥ iv.; P. gum. tragacanthæ, ʒ ij. M. Aquæ aurantii quantum sufficit. The mass is to be made into lozenges of three grains each. Their use principally in removing the mercurial fœtor of the breath.

and gives certain rules for its exhibition. Certain chancres, says he, of a phagedænic or hunterian character with a hard base, or which leave behind them in healing an indurated cicatrix, are more frequently followed by secondary symptoms, when treated without mercury, than if this remedy had been given.

42. When venereal sores become stationary, or do not heal under the simple treatment, and the exhibition of mercury is not contra-indicated by the inflammatory or irritable condition of the sore, or certain states of the constitution, mercury may be advantageously used. Mercury, according to M. Desruelles, is not to be employed when any of the viscera present symptoms of irritation, when the patient applies immediately after having contracted his disease, or when the sore heals quickly under the simple treatment.

43. Mercury may be given when the local inflammation accompanying a venereal sore has been subdued, and the patient is prepared for its exhibition by diet and aperients, the sore remaining indolent, of a bad aspect, and not healing or appearing to be influenced by the simple treatment. This remedy may be also employed if the sores are complicated with inflammation or enlargement of the glands of the groin, or if any affection of the skin, as papular or other eruptions, make their appearance during the simple treatment, and there is reason to believe the constitution affected.

44. In many secondary affections, although generally trusting to the simple treatment, Desruelles thinks the employment of mercury, particularly of the proto-ioduret, may be of service. He merely states that if secondary symptoms appear in an individual,

who has, for the primary form of the disease, been treated fully by mercury, it is better to employ the simple treatment, sudorifics, and attention to the general health of the patient, than to have recourse again to the employment of mercury. In secondary syphilis, which succeeds to a primary affection which has been treated without mercury, this remedy is almost always necessary. A mild mercurial course in such instances is generally more efficacious than any other.*

SECTION II.

Of particular Preparations of Mercury, and their Mode of Employment.

MERCURIAL FUMIGATIONS.

45. These forms of the remedy are principally employed in obstinate affections of the skin, the throat, or the nasal fossæ; and though they may be had recourse to in the primary forms of diseases independent of any other mercurial preparation, they are chiefly used when its external exhibition has failed. The method employed by Werneck in Germany appears the simplest and most efficacious.

46. The patient is prepared for the fumigations by low diet, the warm bath used daily, aperients, and the compound decoction of sarsaparilla. This preparatory treatment is pursued for five or six days prior to the

* See the remarks of Desruelles on this subject, op. cit. pp. 341 et suivantes. Réflexions pratiques sur l'emploi des Sudorifics.

fumigation, and the patient is confined to his room, which should be of the temperature of fourteen degrees (Reaumur). At the end of this period a smart aperient should be exhibited, and the fumigation may be then employed. The patient is placed upon a seat, covered with a mantle of waxed or oiled cloth; the apparatus, which consists merely of a spirit lamp and a china plate, upon which the cinnabar or sulphuret of mercury is laid, put under it. The mantle should be fixed closely round the neck to prevent the mercurial vapours escaping into the room.

47. The fumigation is continued for a quarter of an hour, in a chamber of the temperature of eighteen degrees (Reaumur), and at its conclusion the patient is directed to go to bed; it is for this reason that the remedy is most conveniently employed in the evening. The quantity of cinnabar necessary for each fumigation is from twenty grains to a drachm; one application a day is sufficient, and the cure is generally complete in eighteen or twenty days; in case of salivation occurring, or any circumstances affecting the constitution of the patient, the fumigations must be used less frequently, the quantity of the mercury diminished, or the remedy altogether discontinued. When the treatment is terminated, the patient is to change his linen and take a bath.*

48. Cullerier remarks that occasionally fumigations with the sulphuret of mercury produce remarkable

* See Werneck's memoir in the *Revue Médicale*, for January, 1831. Also, Rapou, *Traité de la Méthode Fumigatoire*, &c. Paris, 1824, 2 vols. 8vo.

cures. It is rare, says this author, that papular or even pustular venereal affections of the skin resist their application. Their use is indicated in obstinate chronic ulcerations of the mouth, throat, nose, and other parts, and by a very simple contrivance the vapour of a few grains of cinnabar may be directed easily into the depths of these parts.

THE PROTO-CHLORIDE OF MERCURY.

49. The proto-chloride of mercury, or the chloride of mercury of the London Pharmacopœia, is extensively used in venereal diseases. Desruelles speaks highly of its anti-venereal properties. The following is the form in general use at the hospital of Val de Grace:

R. Hydrargyri chloridi,
Ext. conii, āā gr. j.
M. Pulveris glycyrrhizæ, q. s. ft. pil.

The quantity of the extract of conium may be increased, or a small quantity of opium added, if the circumstances of the case require it. These pills are administered at first in the dose of one or two a day, gradually increased; Desruelles occasionally pushes them to the extent of twenty-five or thirty in the twenty-four hours.

50. The employment of this combination of the chloride of mercury is particularly indicated in chronic inflammations of the testicle, complicated even with ulceration, or incipient disorganization of these parts. In such cases M. Gama, Desruelles, and Cullerier, place implicit reliance on this preparation of mercury,

and state that it rarely fails even in the worst cases. It is also extensively employed in tubercles of the labia, with or without ulceration, in various forms of creeping ulcers, and also in ulceration of the throat and nasal fossæ. We cannot, says M. Desruelles, too much recommend this preparation, which, united to opium, and an antiphlogistic regimen, may produce the most beneficial results.

Another form :

R. Ext. conii, gr. iij.
Hydrarg. chlorid. gr. j.
Antimonii sulphureti præcip. gr. j. M. ft. pil.

Ricord's form :

R. Hydrargyri chloridi, ℥ j.
Pulveris conii,
Saponis Hispaniolæ, āā ℥ ij. M. ft. pil. xxiv.

These pills are employed by M. Ricord in the treatment of enlargements of the testicle, which remain after inflammation of this organ, complicating or succeeding to gonorrhœa (epididymite blennoragique).

THE BICHLORIDE OF MERCURY.

51. The bichloride of mercury is employed chiefly in the French hospitals, in certain forms of primary syphilitic sores with hard base and edges which have resisted the simple mode of treatment, also in secondary syphilis generally, particularly in those varieties of it which are complicated with ulcerations of the mucous surfaces. According to Dzondi, whose method of treating syphilis is extensively followed in Germany,

and at the "La Charité" hospital of Berlin, the bichloride of mercury is the chief preparation of this remedy on which reliance should be placed in the treatment of constitutional syphilis.

FORM IN USE AT VAL DE GRACE.

Rx. Hydrargyri Bichlorid., gr. $\frac{1}{4}$.
Pulv. Opii, gr. $\frac{1}{2}$. M. Pulv. Glycyrrhizæ, q. s. ft. Pil.

One a day for the first ten days, the dose then gradually increased. M. Desruelles does not exceed half a grain of this salt a day.

DUPUYTREN'S FORM.

Rx. Hydrargyri Bichlorid., gr. ij.
Pulv. Opii, gr. viij.
Gum. Guaiaci, gr. xxxij. m. ft. Pil. xvj.

M. Dupuytren was of opinion that small doses of the bichloride of mercury were more efficacious than larger ones, he rarely exceeded the sixth of a grain for a dose. One of the pills of the above form were given three times a day.

52. Dzondi's pills each contain one twentieth of a grain of the bichloride united with a small proportion of opium. He administered in the commencement, four a day, half an hour after the dinner meal. Twelve grains of the bichloride of mercury are made with an inert powder, as liquorice, into 238 pills. Four of these are given the first day; the day but one after, six; increasing the dose two pills every day, and leaving one day's interval between each dose, so that on the

thirtieth day from the commencement, the patient takes thirty pills or one grain and a half of the salt.

53. Dupuytren and Dzondi recommend that the patient should be strict in his regimen during this treatment, avoiding all stimulant and much animal food. The efficacy of the plan is much augmented by taking frequent drinks of the warm compound decoction of sarsaparilla throughout the day.

THE PROTO-IODURET OF MERCURY.

54. MM. Cullerier, Biett, and several others, employ the proto-ioduret of mercury in preference to the bi-chloride, as more certain in its effects and less liable to decomposition. This preparation may be employed in primary syphilitic sores in strumous habits, but is chiefly resorted to in chronic affections and in those varieties of disease which have been described by authors as constitutional syphilis.

M. CULLERIER'S FORM FOR THE EMPLOYMENT OF THE PROTO-IODURET OF MERCURY.

R. Hydrargyri proto-ioduret, gr. xij.
 Ext. v. Pulv. Opii., gr. vj.
 Gummi Guaiaci, 3 j. M. ft. Pil. xxiv.
 Capiat 1 nocte manequ.

POMMADE OF VAL DE GRACE.

R. Hydrargyri proto-ioduret, ʒj.
 Adipis, 3 j. M.

Employed in friction upon tumours and indolent buboes after all acute inflammatory symptoms have disappeared.

55. It is principally, says M. Cullerier, in secondary syphilis that the proto-ioduret of mercury is administered with success. Its effects are principally evident in secondary ulceration of the mucous membrane, cutaneous tubercles, exostoses, and chronic affections of the joints, where the other preparations of mercury have had little effect.

56. The deuto-ioduret of mercury may be employed in friction or in pills, in the same manner as the proto-ioduret; it is stronger and more stimulating, and consequently should be administered in smaller doses. Both these remedies may be advantageously employed in all cases of secondary syphilis, with more certainty and less risk than the deuto-chloride; also in indolent buboes, in obstinate ulcers with hardened base and edges. In all instances they must be guarded by opium, and the patient must be submitted to a strict dietetic and antiphlogistic regimen during their employ. The dose of the deuto-ioduret from $\frac{1}{16}$ of a grain to a grain.

THE CYANURET OF MERCURY.

57. The cyanuret of mercury is now frequently employed in preference to the bichloride, and for the following reasons. It is more soluble and not so liable to decomposition, acts more quickly, and does not occasion those pains in the stomach and bowels that so frequently accompany the prolonged administration of the bichloride. According to the researches of M. Parent,* the cyanuret of mercury is not decom-

* Revue Médicale, Août, 1832.

posed by either acids or alkalis, nor by decoctions containing azotised principles or gallic acid.

58. The cyanuret of mercury may be administered internally in pills, or in solution, and used externally in form of pommade or ointment. M. Cullerier employs the cyanuret in primary syphilis. Externally it is an extremely useful application to various forms of herpes, particularly that form termed by Alibert, "herpes squamosus," the violent itching and irritation of which it allays. It may be employed externally also as a dressing to indolent syphilitic ulcers, and scirrhus tubercles, or as a gargle in ulcerations of the throat. The dose of the cyanuret is from $\frac{1}{16}$ of a grain to a grain.

GARGLE OF THE CYANURET OF MERCURY.

Rx. Hydrargyri Cyanuret., gr. x.
Infus. Lini Comp., ℞ j. M.

PILLS OF THE CYANURET OF MERCURY.

Rx. Hydrargyri Cyanuret., gr. viij.
Pulv. Opii, gr. xvj.
Ext. Guaiaci, 3 ij. M. ft. Pil. lxiv. Capt. 1 ter die.

OINTMENT OF THE CYANURET OF MERCURY.

Rx. Hydrargyri Cyanuret. gr. xij.
Adipis, ℥ j. M. ft. Unguentum.

SOLUTION OF THE CYANURET OF MERCURY.

Rx. Hydrarg. Cyanuret. gr. vj. ad gr. x.
Aquæ, ℞ j. M.

Half an ounce for a dose, administered in a mucilaginous vehicle or with the addition of sugar in form of syrup.

M. PARENT'S CYANURETTED PILLS.

- R. Hydrargyri Cyanuret. gr. xxiv.
Ammoniae Muriatis, 3 iij.
Gualiaci Gummi, 3 iij.
Ext. Aconiti, 3 iij.
Ol. Anisi, ℥. xxiv. M. Mucilagini, q. s. ft. Pil. 400.

One or two twice or three times a day, the dose gradually increased. Each pill contains about $\frac{1}{16}$ of a grain of the cyanuret. These pills are a substitute for the bichloride of mercury in many forms of secondary syphilis.

ANOTHER FORM OF M. PARENT.

- R. Hydrarg. Cyanuret., gr. vj.
Opii, gr. xij.
Micæ panis, q. s. ft. Pil. xcvi.

Each pill contains $\frac{1}{16}$ of a grain of the cyanuret adapted to forms of primary syphilis. The dose of one or two pills twice a day in the commencement, and gradually increased.

THE DEUTO-PHOSPHATE OF MERCURY.

59. The deuto-phosphate of mercury is employed in Italy, more particularly at Naples, in the treatment of venereal affections in preference to the other salts of this metal. It may be given internally in pills or in

solution in the same doses as the bichloride. Employed by friction upon indolent buboes or exostoses, it is said to be preferable to all other forms of the remedy. It is of use also as a dressing to indolent chancres.

OINTMENT OF THE DEUTO-PHOSPHATE OF MERCURY.

Rx. Hydrargyri deuto-phosphatis, gr. viij.
Adipis, ʒj. M. ft. Unguent.

In cases of indolent bubo, a few grains are rubbed daily upon the tumour, the frictions also are to be made upon the groin of the opposite side. Our experience in the use of this remedy is drawn chiefly from the practice of Fiore and the Neapolitan surgeons, it is scarcely used in France, although occasionally employed in Germany.

SECTION III.

On Inoculation, as applied to the Diagnosis and Treatment of Syphilitic Diseases.

60. Both before and since the time of Hunter, inoculation has been employed for the purpose of testing the character of syphilitic diseases; and at the present day, M. Ricord, Surgeon to the Parisian Civil Venereal Hospital, has deduced, from an extended series of experiments, certain conclusions of great value and importance, which he has given to the world in his great work "*Traité pratique des Maladies Vénériennes, ou Recherches critiques et expérimentales sur l'Inoculation, appliquée à l'étude de ces Maladies.*"*

* Paris. 1838.

61. M. Ricord establishes, in the first place, that a chancre, wherever it may be seated, is produced by a specific matter which is secreted by a chancre only, which matter produces a similar disease whenever placed in circumstances favorable to contagion.

62. This specific matter is only secreted from the surface of a chancre during its first stage, that is, during the period of ulceration, or when the sore is indolent or stationary. At these periods only does a chancre secrete a specific matter capable of producing a similar disease by inoculation. When the sore begins to heal and a process of reparation has commenced, it is merely a simple ulcer, does not furnish a specific secretion, and is not capable of propagation by inoculation.*

63. If matter be taken from a chancre during the period of ulceration, and introduced under the epidermis by means of a lancet, it produces the following effects. During the first four and twenty hours the puncture becomes more or less inflamed; from the second to the third day it is accompanied with slight tumefaction, and presents the appearance of a small papula surrounded with a red areola; from the third to the fourth day the disease assumes a vesicular form, the epidermis being raised by a fluid more or less opaque, presenting at its apex a small dark point; from the fourth to the fifth day the contents of the vesicle become purulent, the apex of the pustule depressed, resembling very

* It would appear that these views were likewise entertained by Dr. Wallace, who divides chancre into two distinct stages or phases, the first one of ulceration, the second one of reparation; he particularly insists upon the impropriety and danger of administering mercury during the first stage, that of ulceration.

much the pustule of smallpox. At this period the areola, which had progressively increased, begins to diminish or altogether disappears, particularly if the disease does not increase: after the fifth day, however, the subjacent and surrounding tissues, which hitherto had undergone little or no modification or were merely slightly œdematous, become indurated by the extravasation of a plastic lymph, which communicates to the touch the resistance and elasticity of cartilage. After the sixth day the contents of the pustule thicken, the pustule itself shrivels up, and is covered with crusts. These enlarge towards their base, and forming by successive strata, at length assume the form of a truncated cone with a depressed apex. If these crusts are detached, or if they fall off, we find under them an ulcer with the hard base of which we have spoken, extending through the whole thickness of the skin. The surface of this ulcer, of a deep red colour, is foul, covered with a thick adhesive pultaceous matter, almost like a false membrane, which cannot be removed by any attempt to clean the sore. The edges of the ulceration at this period appear as though it had been dug out from the surrounding parts by a sharp circular instrument. The immediate vicinity of the sore is surrounded by a red, dark, or livid margin, more elevated than the surrounding parts.

64. M. Ricord further establishes that chancre in its commencement is purely a local disease; that constitutional or secondary affections can only take place after this antecedent; that they do not occur in all cases, and only after the lapse of a certain period of time.

65. Whatever may be the varieties and complica-

tions which subsequently follow or accompany the inoculated chancre, the progress of the latter is in all instances such as we have described it. The pustular form of incipient chancre is only wanting when the parts to which the virus is applied are destitute of epidermis or epithelium, and it is only preceded by phlegmonoid inflammation when the matter has been introduced into the subcutaneous cellular tissue, or into the lymphatic system.

66. The ulcerations completely destroyed or arrested on the third, fourth, or fifth day from the application of poison are not liable to secondary inflammation. It is not before the fifth day that the induration of chancres commonly commences, and it is the indurated chancre that is most frequently followed by secondary symptoms; this induration seems to indicate that the affection has become in some measure already constitutional; as long as there is no induration we may suppose the disease to be merely local.

67. The varied appearance which primary venereal sores presents (says M. Ricord) has given rise to arguments against the identity of the venereal virus, and has led to the promulgation of the theory of a plurality of venereal poisons. Inoculation, however, sets this matter at rest, for whatever may be the actual character of the sore from which we take the pus, provided it be taken during the first stage of chancre, that of ulceration or indolence, we obtain by inoculation a regular pustule when the matter is introduced beneath the epidermis or epithelium; an ulcer when it is applied to a denuded surface; and an abscess when introduced into the cellular tissue, or into the lymphatic system.

68. The various characters of chancres or primary venereal sores, are due to circumstances which are foreign to the specific cause which produced them; these are principally the particular constitution of the patient, his mode of living, the influence of any antecedent or present disease with which he may happen to be affected, and not least the local treatment of the sore. It is from one or many of these circumstances that we see phagedenic ulcers in subjects who have contracted their disease from others affected with ulcers of the simplest character.

69. The first stage of chancre, i. e. of ulceration or indolence, is the only one during which the disease is susceptible of propagation by inoculation; the period of this stage is not limited, hence, M. Ricord has known primary venereal sores capable of propagation after having continued eighteen months.

70. The researches of M. Ricord on the nature and differential diagnosis of buboes are of equal interest with those which we have detailed on the subject of primary sores. According to this author, buboes are of two kinds, simply inflammatory, or virulent: in the first instance, succeeding to gonorrhœa, balanitis or any other primitive affection; and in the second, from the consequences of the direct absorption of specific matter from a chancre. To the pathology of bubo we shall return in the Section particularly devoted to its consideration; in this place merely detailing the results obtained by inoculation from buboes in a condition of ulceration.

71. M. Ricord deduces from his experiments upon buboes in a condition of ulceration, the following con-

clusions: that a virulent bubo, or one resulting from the absorption of the specific pus from a chancre, is a disease precisely similar to chancre, merely differing from it in its seat, and the anatomical organization of the parts affected; that this species of bubo is the only one capable of producing a pustule by inoculation; that the symptoms hitherto indicated by authors, with a view of establishing the differential diagnosis between a true virulent bubo and one merely inflammatory, are of little value, inoculation being the only certain and pathognomonic sign.

72. M. Ricord admits the existence of buboes which are not preceded by any other syphilitic affection: these make their appearance at a certain period after an impure connexion without the intervention of chancres, gonorrhœa, balanitis, or other form of primary irritation. The existence of these buboes is also admitted by Fallopius, Astruc, Swediaur, Bertrande, and lately by Dr. Mondret, in a memoir inserted in the "*Recueil périodique de la Société de Médecine*," for August 1837. These buboes are termed by the French surgeons "*bubons d'emblée*," and may be either simply inflammatory or syphilitic. M. Ricord insists that when these buboes occur without the intervention of any antecedent form of disease, it is impossible to judge of their true character without the test of inoculation, and consequently impossible to heal them rationally or well. He maintains that those only which furnish the characteristic pustule of chancre by inoculation are those only which are capable of being followed by secondary symptoms. Those from which no pustule can be

obtained by inoculation are simply inflammatory, and must be treated on general principles.

73. With reference to the test of inoculation itself, some degree of difference of opinion exists, although M. Ricord states that the reason of this is, that the experiments have not been made in a proper manner. —On this point we consider this author's opinions worthy of attention. Whenever inflammation and suppuration of the cellular tissue, or lymphatic glands of the groin, is owing to any other cause than the occurrence of chancre, the pus secreted furnishes no result from inoculation, at whatever periods and under whatever circumstances the test may be made. Neither does it follow, of necessity, that buboes succeeding to true chancres will furnish a specific pus; and consequently, by inoculation, a characteristic pustule. That this may occur it is necessary that the bubo shall not merely be owing to a simple sympathetic inflammation, but that actual absorption of the specific matter of the chancre shall have taken place. When absorption of the matter from a chancre on the genitals takes place, it is generally confined to the superficial glands of the groin; and most frequently the syphilitic poison is conveyed to one gland only, although many of the glands in the immediate vicinity of the latter, both superficial and deep seated, are inflamed, and suppurate at the same time, so that the matter taken from one gland shall be purely syphilitic, and give rise, by inoculation, to the characteristic pustule, whilst those in its immediate neighbourhood, and the cellular tissue, shall be affected by simple phlegmonoid inflammation, the pus from which

shall, when tested by inoculation, give a negative result.*

74. It may be very readily conceived, that the irritation produced by the passage of the syphilitic poison through a lymphatic vessel and ganglion may excite in the neighbouring organs an inflammation which is not specific, but merely phlegmonous, and this appears to be the true nature of the case. M. Ricord opened a bubo which had succeeded to a chancre, the pus from which produced no result by inoculation. In the centre of the abscess he discovered an enlarged lymphatic gland, presenting an evident fluctuation; this was punctured and tested by inoculation, the characteristic pustule of chancre was obtained.

75. Discharges from the urethra are of two kinds, resulting either from the existence of a true syphilitic ulcer in some part of the passage, or owing to gonorrhœa properly so called. Chancres, or syphilitic ulcers of the urethra, to the consideration of which we shall return in a particular article, are in all respects, except situation, of the same character as other primary sores, and give rise to the same results when the matter is tested by inoculation.

76. The matter of gonorrhœa applied upon a mucous surface produces an inflammation and discharge of the same character. In no instance can it produce a true syphilitic sore; although by remaining in contact with a mucous surface for a certain period of time, it may occasion a greater or less degree of excoriation, but is

* See Ricord, *op. cit.* p. 142 et suivantes.

not capable of producing a specific ulcer, as the researches of Ricord,* Hernandez,† and others incontestably prove.

77. The diseases which are consecutive to gonorrhœa, as sympathetic buboes, &c. do not secrete pus capable of producing a specific ulcer by inoculation, neither do secondary or constitutional symptoms ever succeed to a simple gonorrhœa. M. Ricord thinks that in the rare cases where secondary symptoms have been said to have followed a simple gonorrhœa, that the diagnosis of the primitive disease has been inexact, that the diseased surfaces have not been properly examined, and the cases have been concealed chancres of the urethra, and not gonorrhœa. It is also extremely probable that such were the forms of disease which embarrassed Dr. Wallace, who says that he had met with some forms of discharges from the urethra, which were beneficially influenced by mercury, and which he was unable to cure without its exhibition.

78. The pus of gonorrhœa, tested by inoculation, gives no result; it may be followed by inflammation, but never produces a specific sore: injected into the urethra it produces a disease like that of which it is the product; applied externally between the glans and prepuce it occasions inflammation and discharge, balanitis, or external gonorrhœa: a similar effect

* Mémoires, sur quelques Faits observés à l'Hôpital des Vénériens, par P. Ricord. Mémoires de l'Académie Royale de Médecine. Tome 2^{me}.

† Essai analytique sur la Nonidentité des Virus gonorrhôïque et syphilitique; par J. F. Hernandez. Toulon, 1812. Art. iv.

follows its application upon other mucous surfaces. One remark may be made here, in concluding the account of the results obtained by Ricord and others from inoculation as a means of diagnosis in syphilitic diseases, that when it is resorted to in cases of uncertainty, we are to test the matter frequently, from day to day, during the whole process of disease; for, as in other instances, we may here find that, although we have not succeeded in obtaining a result from the first, second, or even third puncture, we may eventually do so; daily experience in other diseases, vaccination in cowpox, inoculation in smallpox, &c. showing that, from circumstances we cannot appreciate, the first puncture may not succeed, when a second or third will be followed by a characteristic pustule.

79. We now enter more particularly upon the particular description and treatment of syphilitic affections. These diseases present in their primitive forms two varieties, distinct in their nature, treatment, and results; these are gonorrhœa and its varieties, and chancres or primary venereal sores. A third primitive form may be added, which is bubo, the "*bubon d'emblée*" of the French syphilographers; but, as this occurs more frequently as a consequence of one of the other two varieties, than as a primary symptom, we shall not here rank it among the latter.

SECTION IV.

*Of the First Class of Primary Syphilitic Diseases.**

GONORRHOEA, ITS VARIETIES AND CONSEQUENCES.

I. OF BALANITIS.

Inflammation of the Glans Penis—External or False Gonorrhœa.

80. This disease is characterized by more or less redness, and a muco-purulent discharge from the surface of the glans penis, with or without excoriation. Balanitis rarely occurs alone, but is more frequently complicated with a similar condition of the internal surface of the prepuce (posthitis). It is then termed by Desruelles, balano-posthitis. As it is rare to see the affections separate, I shall consider both under the title of balanitis.

81. This affection may have a purely venereal origin, or may succeed to connexion with women labouring under leucorrhœa, or other simple inflammatory affections of the vagina, or when this part is covered with secretions of a more or less irritating character. The menstrual discharge will also frequently occasion balanitis; and I have frequently seen great anxiety arise to married men who have suffered from balanitis, the result of connexion with their wives in one or other of the above-mentioned states.

* Synonyms. Affections non virulentes.—*Ricord*. Maladies primitives à forme érythémateuse.—*Desruelles*. Catarrhal primary syphilis.—*Wallace*.

Balanitis sometimes owes its origin to a natural conformation of parts, and hence subjects with a natural phymosis, or small preputial opening, may be considered as predisposed to it.

82. The symptoms which ordinarily denote the existence of balanitis are heat and itching of the glans and prepuce, with a discharge of variable character from the orifice of the latter; these symptoms may be accompanied by phymosis, or paraphymosis. When the prepuce can be drawn back and the glans uncovered, this is found red, swollen, and covered with a muco-purulent fluid of an unpleasant smell. The epithelium of the glans and prepuce is detached in places, excoriated, but not in a state of true ulceration. The testicles and glands of the groin are sometimes more or less swollen and tender; we have seen the former occasionally suppurate, and bubo supervene upon balanitis.

83. Balanitis may be complicated with gonorrhœa, or with true venereal ulcerations of the glans or prepuce. It is commonly an acute disease, and generally gives way easily to proper remedies; it may, however, pass to the chronic state, or exist in such a condition from the commencement; in either case, after relief or cure, it is prone to be easily reproduced by slight exciting causes. The continuance of balanitis, in the chronic state, may occasion enlargement of the sebaceous follicles, vegetations at the base of the glans, thickening and hypertrophy of the mucous membrane, adhesions between the glans and prepuce, or according to Roux, cancer of the penis; it is also the most common cause of phymosis and paraphymosis.

84. The treatment of uncomplicated balanitis is

extremely simple. When the glans can be denuded, and the inflammation is not very acute, M. Ricord passes the solid nitrate of silver slightly over the surface, covers it with a piece of fine soft linen, and then brings the prepuce forwards over the glans. The penis should be covered with linen compresses soaked in cold water, or the liquor plumbi diacetatis dilutus, and the linen between the prepuce and glans renewed twice in the day; at each renewal of the linen, the parts should be washed with an astringent lotion.* It will be occasionally found that lotions of all kinds tend to keep up the irritation. When this is the case, the surface of the glans should be thickly dusted with an astringent powder;† this tends to allay the irritation, by absorbing the acrid secretions, and preventing any friction between the glans and prepuce. If the inflammatory symptoms accompanying balanitis run high, and are complicated with phymosis, leeches may be applied in the groin or perineum, aperients administered, and the patient should keep quiet and live low. Injections of the nitrate of silver or an aqueous solution of opium may be thrown up between the glans and prepuce, and one or two leeches applied to the tumefied under portion of the prepuce. In cases where balanitis, thus complicated, terminates in gangrene, or this is threatening, Ricord recommends the free exhibition of opium, either by the mouth, or united with

* R. Plumbi acetatis, ʒj.
Aquæ distillatæ, ʒ viij. M. ft. Lotio. — *Ricord.*

† R. Plumbi subcarbonat.
Pulvis cinchonæ, āā ʒj.
Pure tannin, gr. v. M. ft. pulvis.

camphor in form of enema. Desruelles speaks highly of continued injections or irrigations in balanitis, or balano-posthitis, resorted to when these diseases are complicated with phymosis. To accomplish this, a small canula may be fitted to one of Weiss's self-acting enema syringes; the canula, which should be made of caoutchouc or elastic gum, is to be passed between the glans and prepuce; and thus, without removing it, a continued stream of some narcotic or astringent injection* may be thrown gently up for some minutes together.

85. Balanitis may occur without being complicated with other and more marked venereal symptoms, or it may coexist with chancres of the glans or surface of the prepuce. In these instances, where patients present themselves to us, after a suspected intercourse, with phymosis and muco-purulent discharges from the preputial opening, we must remain uncertain whether the disease is complicated with chancre or not; but as it frequently is so, Cullerier and Ricord are very guarded in resorting to any operation with the knife for the relief of the phymosis unless the danger of gangrene be imminent. In these forms of disease we must, in the first instance, subdue the inflammatory symptoms in the manner recommended for the treatment of simple balanitis: injections of nitrate of silver

* R. Decoct. papaveris, h. ij.

Aluminis ust. gr. xx. M. ft. injectio.—Desruelles.

Simple tepid water, with alum in the proportion of eight or ten grains to the pint, forms an exceedingly useful injection, particularly where large quantities are used.

are to be thrown up between the glans and prepuce,* or we may endeavour to pass the solid nitrate between these two parts, and thus superficially cauterize the whole surface within reach. Ricord speaks most highly of this practice in balanitis complicated with inflammatory phymosis. The antiphlogistic treatment must be followed up till the glans can be denuded, and the true nature of the disease and its complications thus made evident. When balanitis is complicated with chancres, the general inflammatory symptoms are to be first removed, and the syphilitic affection then treated specifically.

II. OF GONORRHŒA.

Urethritis, Acute or Chronic,—Desruelles. Blenorrhagia,—Swediaur. Venereal or Syphilitic Catarrh,—Wallace.

86. Gonorrhœa, a disease of daily occurrence, is, perhaps as much or more than any other presented to the surgeon, the daily source of annoyance to him, and anxiety and weariness to his patient. This, we apprehend, arises in a great measure from the want of

* Cullerier employs the following preparation :

Rx. Cerati simplicis, vel mellis,
Olei olivæ, āā ʒ j.
Hydrargyri chlorid. ʒ ss.
Ext. opii, ʒ j. M.

Introduced between the glans and prepuce by means of a camel-hair pencil ; a remedy of great value.

a correct knowledge of its modifications and varieties,* and consequently an uncertainty in the treatment more especially adapted to its different forms. Gonorrhœa consists in inflammation more or less acute of the mucous membrane of the urethra, or other parts of the genito-urinary passages, accompanied by the secretion of a muco-purulent fluid of a yellow or greenish appearance; pain, itching, or irritation in voiding the urine, with, in the male, repeated and involuntary erections of the penis.

87. We believe, with the best pathologists of the day, that gonorrhœa, though the result of impure cohabitation, and hence termed a venereal disease, is an affection of a totally different character to the primitive syphilitic ulcer. We do not believe the opinions of the late Dr. Wallace to be true, that syphilis and gonorrhœa are varieties of the same disease;† modern testimony, drawn from the results of inoculation, universally proving that the pus of chancre has never produced gonorrhœa, and the

* Varieties of gonorrhœa.—*Ricord.*

First species.—Gonorrhœa in the female :

Varieties, seated in $\left\{ \begin{array}{l} \text{the vulva,} \\ \text{the vagina,} \\ \text{the uterus,} \\ \text{the urethra,} \end{array} \right\}$ may exist alone, or variously combined.

Second species.—Gonorrhœa in the male :

Varieties, seated in $\left\{ \begin{array}{l} \text{the urethra,} \\ \text{on the prepuce, or} \\ \text{the glans penis,} \end{array} \right\}$ may exist alone, or variously combined.

† On the Venereal Disease, &c. p. 284 and elsewhere.

reverse.* Holding these views, we believe, with M. Cullerier, that gonorrhœa, properly so called, is incapable of producing secondary symptoms, and that the instances, which are however comparatively rare, in which this is said to have occurred, have been owing to chancres or primary venereal sores of the urethra, which an imperfect diagnosis has, in the first instance, confounded with gonorrhœa.

88. The causes of gonorrhœa are various; the most frequent, however, is cohabitation with a female affected with the same disease. It is certain that inflammation, with muco-purulent discharge from the urethra, may be the result of connexion with women who labour under various forms of disease, such as inflammation of the vagina; the lochial or menstrual discharges, fluor albus, ulcerations of various kinds not syphilitic, different morbid conditions of the os uteri, amongst which Cullerier and Ratier specially mention the cancerous ulcer. It appears to me evident that, in the present state of science, it is impossible with certainty to ascertain what may be the true cause of that gonorrhœa which succeeds to cohabitation, unless the female be submitted to examination with the speculum: and hence M. Ricord states that no confidence is to be placed upon any statements of this character, unless the speculum have been employed as a means of confirming our diagnosis; the condition of the constitution also at the time of exposure to infection must be

* See Ricord, and the authors quoted by him in his work already referred to, also Cullerier, in Lucas Championniere's work, p. 384, &c. &c.

ranked as a predisposing cause. Gonorrhœa is also due to other causes apart from sexual intercourse, as masturbation, habitual costiveness, inflammation of the prostate gland, certain morbid conditions of the bladder or ureters, particularly the presence of calculi in these parts, piles, and the excessive or immoderate use of wine or fermented liquors generally. In children this affection is sometimes dependent upon teething or intestinal worms. It also recognizes for its cause a gouty or scorbutic diathesis, or succeeds to the suppression of habitual discharges, or the cure of old standing cutaneous eruptions. In addition to all these causes, which are strictly internal, gonorrhœa is produced by external violence or injuries to the penis, and the operation of a second class of causes of various kinds which are external.

89. *Pathology.* Gonorrhœa consists in an inflammation more or less diffused of the mucous membrane of the urethra, &c. Dr. Wallace considers this inflammation, from its diffused or erratic character, to be of the erysipelatous kind; hence Desruelles terms it "inflammation érythémateuse." The inflammation does not commonly affect the whole surface of the urethral mucous surface; when it does so, it assumes the name of "gonorrhœa virulenta," and is generally accompanied with violent symptomatic fever. The points in which the inflammation remains most commonly fixed, or in which it is manifested with greatest intensity, are the fossa navicularis, and the vicinity of the bulb: this arises from the anatomical disposition of the mucous membrane, which, in this situation, is much more intimately adherent to the erectile tissue beneath it. Gonorrhœal inflammation may be diffused over a

wide surface, and "may involve at the same time the whole of the urethra, the bladder, the testicles, the glans and prepuce in the male; and in the female the nymphæ, clitoris, labiæ, vagina, &c.; and thus commencing at the preputial end of the penis, in the fossa navicularis, it not unfrequently creeps slowly on to the posterior parts of the urethra, to the bladder, or to the testicles, while it decreases or ceases entirely in the parts first affected."* It may be confined to the mucous membrane itself, or extend to the tissues beneath it; in the latter instance the irritation constantly determines a flow of blood into the cells of the erectile tissue of the corpora cavernosa and corpus spongiosum, which occasions a continual tension of the penis. Occasionally the inflammation becomes located in some part of the canal, producing thickening, effusion into the submucous cellular tissue, and in some cases ulceration; in these forms the disease assumes more of a local character, and is not so much disposed to spread by continuity of tissue.

90. *Symptoms.* The general symptoms of gonorrhœa are too well known to need description, yet those which indicate its localization in particular parts of the urethra may be detailed with advantage. When the disease is confined to the fossa navicularis, it is only in this portion of the passage that uneasiness or pain is felt when the patient voids his urine; the glans is more or less swollen, and its lips tumefied and red. On pressing and rolling the urethra between the thumb and finger a distinct thickening is felt, as though a

* Wallace, pp. 237-8.

portion of a sound had been introduced into the urethra; the pressure is also painful to the patient. The greater and more marked the thickening of the urethra in this situation, the stronger is the presumption that the disease is localized there, and does not extend to other portions of the canal. The discharge, under these circumstances, is trifling, though very teasing to the patient; it is constantly presented at the orifice of the urethra. When the inflammation predominates, or is fixed in the straight portion of the urethra, between the glans and the bulb, the patient has no pain in the perineum, but he experiences severe pain in making water, has frequent erections of short duration, and the discharge is more copious than when the disease is confined to the fossa navicularis.

91. If the disease be located in the bulbous portion of the urethra, the patient has pain in the perineum increased by pressure, a constant desire to void his urine, with frequent erections of the penis. The discharge is abundant, accompanied with great pain, and the stream of urine is diminished. When the membranous portion of the urethra is chiefly affected, the pain is severe in the perineum and the neighbourhood of the anus; the desire to void the urine is in many cases constant. The prostate and testicles are commonly enlarged and painful, the spermatic vessels congested, as well as the vasa deferentia. Consecutive diseases of the bladder, prostate, and testicles, are more frequently to be feared when the gonorrhœa occupies principally the two last-mentioned seats.

92. *Sympathies.* During the course of a gonorrhœa the patient is not unfrequently tormented with

pains in the groins, weight and dragging in the testicles, irritation in the rectum, and tenesmus. These depend chiefly upon the localization of the primitive disease, and are easily explained by the anatomical relations of the urethra. Fever of an inflammatory or intermittent character is sometimes present, and affections of the joints, which have been described by some authors under the title of gonorrhœal rheumatism.

93. *Varieties.* Gonorrhœa is not always confined to the organs of generation, or their dependencies; hence varieties in its seat, owing either to the sympathies of other parts during the presence of an urethral gonorrhœa, or from the direct application, from accident or carelessness, of the matter to a healthy mucous surface. These varieties in the seat of gonorrhœa have chiefly been observed in the eye, the nose, and the rectum. Ricord speaks of having observed the latter, principally in the female.*

94. *Consequences and Terminations.* The more acute forms of gonorrhœa may terminate in resolution, or chronic discharges simply, a mere supersecretion, without ulceration or breach of surface; to ascertain this, however, when a discharge continues indefinitely, without being materially influenced by remedies, the canal of the urethra in the male, or the vagina in the female, should be examined by bougies, or the speculum. The other more ordinary terminations of gonorrhœa are ulcerations of the urethra, stricture, and diseased conditions of the bladder, prostate, or testicles.

* Op. cit. pp. 764-5.

95. *Treatment.* It is of immense importance that gonorrhœa should be prevented, or cut short in its commencement, since its duration, in many instances, is almost indefinite, and its consequences so serious. Patients, in a state of alarm after a suspected connexion, frequently seek the advice of their surgeon with the following symptoms: slight irritation in the urethra, dragging of the penis and testicles, uneasiness in voiding the urine; with redness and tumefaction of the lips of the meatus, and a slight increase in the natural secretion of the mucous membrane of the urethra itself. These symptoms do not indicate, as M. Ricord justly observes, that a gonorrhœa has been contracted, since an excessive excitement of the organs of generation, without infection, might produce them; but in the positive absence of any means of a differential diagnosis between this and the commencement of actual gonorrhœa, it behoves the patient to be careful. M. Ricord is of opinion that many gonorrhœas might be avoided, and the symptoms cut short on the onset, if the patients did not commit errors or excesses in diet at this period, and continue to expose themselves to all kinds of excitement. This opinion is deserving of the more attention, since we commonly see a discharge from the urethra set up and continue for some days after a debauch, and then of itself subside.* When the symptoms we have in-

* The researches of M. Lombard, of Geneva, prove that the excessive use of malt liquors, wines, &c. tends to produce discharges from the urethra, and inflammation of its lining membrane.

dicated make their appearance, the patient should strictly adopt and adhere to the lowest possible diet, repose as much as possible in the recumbent position, and take smart aperients with diluent drinks. The warm bath must be avoided ; this, of itself, under such circumstances, has frequently produced the disease ; the cold bath, in warm weather, may be used.

96. A true gonorrhœa may be either acute in its commencement, or ushered in with symptoms so mild, and apparently so trivial, as to be termed chronic ; the disease also may assume a variety of shades of intensity, varying between these two extremes. Against the first form a pure antiphlogistic treatment should be adopted. Bleeding from the arm, aperients, low diet, with local bleeding, by means of leeches, from the perineum, from the glans on either side of the prepuce, or from the meatus urinarius itself, with the warm bath, and complete repose of the organs affected, constitute the remedies especially applicable to the first stages of acute gonorrhœa. Little medicine is here requisite, beside small doses of the nitrate of potash, administered in a copious draught of barley-tea. The gonorrhœal discharge may be ushered in with symptoms less acute than those just described ; and under these circumstances general bleeding may be unnecessary, although, if the patient be plethoric and of full habit, general depletion in the commencement will most materially facilitate our chance of a speedy cure.* Again, in that form of gonorrhœa which is

* Négliger de pratiquer la saignée dans ce cas, c'est laisser échapper l'une des indications les plus pressantes. Desruelles, p. 421.

chronic from the commencement, it will be well at first to examine carefully the urethra, and if we find a part which is indurated, hot, and painful on pressure, to apply a few leeches over it.* It is merely necessary to state that local bleeding, employed for these purposes, is not to be resorted to for the removal of discharge merely; nor without the symptoms of inflammation on some point of the urethra are evident. If employed when the membrane is lax, and no inflammation is present, where the disease is merely a gonorrhœa and not an urethritis, we shall prolong the affection instead of cutting it short.

97. An antiphlogistic treatment, although calculated to facilitate the action of other remedies in the cure of gonorrhœa, is not calculated of itself, at least but rarely, to accomplish this object. Hence another plan of treatment has been framed, which is termed by the French syphilographers "revulsive." This consists in the employment of remedies which are supposed, by producing a specific action of their own on the lining membrane of the urethra, to supersede

* To illustrate by a case the use of topical bleeding from a point of the urethra, in that form of gonorrhœa which is termed chronic: A gentleman consulted me, who had been the subject of a slight discharge from the urethra for five months, he had frequent desire to void his urine, with a constant and troublesome tenesmus; he had tried remedies of all kinds, and injections during this period with partial benefit, and occasional injury. On examining his urethra, which had not been before done, I discovered tenderness, with thickening of the urethra, in the perineum. Four leeches were applied with great benefit, and by their repetition at intervals, three or four times, he lost his pain, his tenesmus, and the discharge.

that of gonorrhœa: these remedies are principally copaiba, cubebs, turpentine, the preparations of iron, iodine, and cantharides, with injections. Every practitioner must daily witness the uncertainty of the revulsive treatment of gonorrhœa employed alone, and the change from remedy to remedy, with but partial benefit to the patient. In this uncertainty, Ricord and others have endeavoured to lay down certain rules at what period the revulsive treatment may be resorted to with the most certain hope of realizing its full and curative effects. "When," says this author, "the acute stage has ceased, although the patient may yet continue to be troubled with erections, and although the penis may be heavy and uneasy, and the glans and lips of the meatus still red and slightly swollen, I have recourse to those remedies which are termed, 'par excellence,' anti-gonorrhœal, which, however, I abandon, to have recourse again to antiphlogistics, if their employment occasion the least increase of inflammation."*

98. "When," says Dr. Wallace, "an impression has been made on the inflammatory symptoms, and that they cease to advance or remain stationary, the urethra should be injected every morning with a solution of the nitrate of silver, made in the proportion of fifteen or twenty grains to the ounce of distilled water, and the patient should be placed under the combined influence of mercury, and the balsam of copaiba and cubebs."†

* Ricord, pp. 725-6.

† Wallace, p. 257. In this stage of the disease Dr. Wallace administers five grains of the blue pill, with a grain of opium every

99. We are not to conclude from what has been said, that in all instances general and local bleeding are to be employed in gonorrhœa before we have recourse to those remedies that are more particularly termed specific. Thus, in scrofulous and weak subjects, those previously troubled with nocturnal emissions the inflammation may be of so passive a character that it will be proper to have recourse at once to the revulsive treatment, with injections. In all cases, however, as I have before said, a careful examination of the state of the urethra and the constitution of the patient, should be instituted.

100. *Of specific remedies. Copaiba.* This remedy, in form of balsam, is the one most commonly used in the revulsive treatment of gonorrhœa, and that upon which most dependence is to be placed. It may be employed early in the disease, unless the inflammation of the urethra be very acute; it is then only to be used when the symptoms are in some measure mitigated by general and local bleeding, &c. If the disease be subacute, it may be administered during the period that local bleeding from the perineum, &c. is practised. In the chronic forms of the complaint, it may at once be employed. Ricord remarks, that it is only against the urethral form of gonorrhœa that copaiba is efficacious; he believes it possesses little or

night; we apprehend the benefit said to be derived from the practice is due to the opium and not to the mercury, as we do not recognize the principles on which it is given "to prevent bubo and secondary symptoms." We are likewise of opinion that the nitrate of silver should be employed in the first instance, in the proportion of a quarter of a grain of the salt to the ounce only.

no influence over the vaginal, or uterine varieties, &c. Both this author and Desruelles think it is much more effectual given alone, than in a state of combination with other remedies; and recommend it to be given, as the most pleasant way and least likely to disturb the stomach, on the surface of a glass of white wine or lemonade. Dr. Wallace, on the contrary, believes its effects are more marked in a state of combination, at least that the combination is more beneficial than the balsam taken singly.* This author combines it with cubebs, or alternates one remedy with the other. It may be given by way of enema when the stomach will not bear it, but when so employed the dose must be much larger than when given by the mouth. The copaiba has likewise been administered with success in large doses at the very onset of gonorrhœa, however acute, and without any preparatory treatment. Monteggia and Fuller administer from half an ounce to an ounce of the balsam for a dose night and morning, at all periods of the disease.† M. Delpech succeeded in curing four hundred cases by administering two drachms and upwards for a dose three times a day; if the inflammation was acute, general bleeding preceded its employ.‡ Rossignol was successful in three hundred cases of gonorrhœas of all kinds. He

* R. Bals. copaibæ.
 Pulv. cubebæ, āā ʒj.
 Liq. potassæ, ʒ ij.
 Pulv. acaciæ, ʒ ss.
 Aquæ rosæ, ʒ vj. M.

† Bulletin de la Société Médicale d'Émulation, 1822.

‡ Revue Médicale. T. vii. p. 403.

employed large doses of the medicine uncombined, and did not submit his patients to any preparatory treatment, or any dietetic regimen.* The average duration of treatment in these cases was eight days. The method we have just described must be employed with caution, and, in most cases where the patient is plethoric it, would be well to accompany or precede it with a general bleeding. We think it might be then employed with pretty general success, in cutting quickly short a gonorrhœa, when a patient applies immediately after having contracted it. M. Lallemand, in repeating the experiments of M. Ribes,† concludes, that although the large doses of copaiba succeed sometimes in cutting short an acute gonorrhœa, they sometimes augment the inflammatory symptoms and the discharge.

101. The balsam of copaiba may be administered alone in wine or lemonade, as I have said, and this is the best way when it is used in the commencement of the disease. It may also be given in various forms of combination.

102. The essential oil of copaiba, the resin of copaiba, and the balsam inclosed in capsules have been employed with the view of getting rid of its unpleasant smell and taste: these remedies, however,

* Dictionnaire de Merat et Delens.

† Mémoire sur l'emploi de baume de copahu à haute dose dans la gonorrhée et l'engorgement consecutif du testicule. Loc. cit. et Revue Médicale. T. ix. M. Ribes gives from two drachms to an ounce of the balsam for a dose, to cut short a gonorrhœa in the commencement.

are none of them entitled to the same confidence as the latter remedy.

Particular forms for the administration of Copaiba.

MIXTURES.

- R. Balsam. copaibæ, $\mathfrak{z}$ j.
 Mucilaginis gummi acaciæ, $\mathfrak{z}$ ij.
 Vini Xerici, $\mathfrak{z}$ iv. M. (Val de Grace.)
 A fourth part twice a day, or more frequently.
- R. Balsam. copaibæ, $\mathfrak{z}$ j. ad $\mathfrak{z}$ ij.
 Aquæ, $\mathfrak{z}$ iv.
 Vitelli ovi, No. 1.
 Liq. opii sedativ. $\mathfrak{m}$. x. ad xx. M.—*Cullerier*.
 The quarter part, or more, night and morning.
- R. Balsam. copaibæ.
 Syrup. tolutanos.
 Mucilaginis gummi acaciæ, āā $\mathfrak{z}$ j.
 Aquæ rosæ, $\mathfrak{z}$ iij.
 Sp. ætheris nitric. $\mathfrak{z}$ iij.
 The quarter to the half, night and morning.
- R. Aquæ menthæ pip.
 Sp. vini rect.
 Balsam. copaibæ.
 Aquæ aurantii, āā $\mathfrak{z}$ ij.
 Sp. ætheris nit. $\mathfrak{z}$ j. M.—*Chopart*.
 Two large spoonsful, three times a day.
- R. Resinæ copaibæ.
 Sp. vini rect.
 Syrup. bals. tolutan.
 Aquæ menthæ pip.
 Aquæ aurantii, āā $\mathfrak{z}$ ij.
 Sp. ætheris nit., $\mathfrak{z}$ ij. M.—*Chopart*.
 Three or four large spoonsful, night and morning.

PILLS.

R. Sapo. Hispaniolæ, $\bar{z}$ ij.
 Balsam. copaibæ, $\bar{z}$ j.
 Pulv. glycyrrhizæ, q. s. ft. pil. 120.
 Dose.—From 15 to 40 a day, at intervals.

R. Ext. catechu, $\bar{z}$ ss.
 Bals. copaibæ, $\bar{z}$ iij.
 Terebinthinæ chiæ, $\bar{z}$ j.*
 Sanguinis draconis, $\bar{z}$ ss. M.

To be made into pills or bolusses of ten grains, from ten to thirty of which are to be taken daily, at intervals.

R. Ext. catechu.
 Bals. copaibæ, āā, $\bar{z}$ iij.
 Hyd. chlorid. Θ j.
 Pulv. glycyrrhizæ, q. s. ft. pil. 150.
 Dose.—Twelve a day, at intervals.

When employed as an enema, the dose of the balsam should be from half an ounce to an ounce.†

INJECTIONS.

R. Bals. copaibæ.
 Vitelli ovi, āā. $\bar{z}$ ss.
 Infus. rosæ, $\bar{z}$ xv. M.

* I have substituted the chia turpentine for the colophane, or powdered yellow resin, of the original prescription.—L. P.

† See Velpeau, Recherches et observations sur l'Emploi du Baume de Copahu, et du Poivre Cubèbe, administrée par l'anus contre la blennorrhagie. Archives générales de Médecine. T. xiii., p. 45.

R. Bals. copaibæ, $\bar{3}$ j.
 Sacchar. alb., $\bar{3}$ j.
 Sp. vini, 3 vj.
 Aquæ distillat. h. j.
 Ext. opii, gr. vj.

Mix the balsam with the sugar, then add the alcohol and the water gradually; pass the injection through a funnel with a view of extracting those portions of the balsam which may not be dissolved.—This injection is employed by Desruelles at Val de Grace, in chronic gonorrhœa complicated with cystitis.

Cubebs. The piper cubebæ is employed in the revulsive treatment of gonorrhœa, after the same manner as the copaiba. It may be administered in moderately large doses on the onset of an acute affection, with a view of at once cutting it short, when employed, however, under these circumstances the same rules must be observed as those we laid down for the administration of copaiba. The cubebs may also be given in chronic gonorrhœa, and in gleet, separately, combined with copaiba, or, as employed by Ricord, united with some preparations of iron. It may also be employed in form of enema.

Particular Forms for the exhibition of Cubebs.

MIXTURE OF THE CUBEBS AND COPAIBA.

R. Bals. Copaibæ, 3 ij.
 Pulv. pip. cubebæ, 3 j.
 Vini Xerici, $\bar{3}$ iij.
 Aquæ rosæ, aurantii, vel menthæ, $\bar{3}$ v.
 Pulv. acaciæ, q. s. ft. mist.

Employed with great success at Val de Grace, in acute or chronic urethritis.

ELECTUARY OF CUBEBS.

R. Pulv. pip. cubebæ.
Sanguinis draconis.
Pulv. ratanhiaæ.
Ext. catechu, āā. 3 ij.
Bals. copaibæ, q. s. ft. Elect.

Dose. From two to four drachms in the twenty-four hours, in chronic gonorrhœa, or gleet.

PILLS OF CUBEBS AND COPAIBA.

R. Pulv. pip. cubebæ recentis, ʒ j.
Balsam. copaibæ, ʒ ss.
Vitelli ovi, q. s.

To be made into pills of five grains each. Dose.—
From six to sixty a day, at intervals.

R. Pulv. pip. cubebæ, ʒ ss.
Balsam. copaibæ, 3 ij.
Ferri sulphatis, 3 j.
Resinæ flavæ, v. terebinthin. chiæ, 3 iij. M.

To be made into boluses of ten grains each. Dose—
From fifteen to thirty a day, at intervals. In chronic gonorrhœa, or gleet, in lax constitutions.

R. Pulv. pip. cubebæ, 3 j. ad 3 ij.
Ferri carbonat., 3 ss. ad 3 j. M.ft. pulv.

This mode of exhibiting cubebs combined with the carbonate of iron is much and successfully employed by Ricord after the acute symptoms of a gonorrhœa have subsided. One powder should be taken three times a day.

SYRUP OF CUBEbine.

Of the hydro-alcoholic extract of cubebs, 3 xij.

Simple syrup and mucilage, o j. M.

One ounce of this syrup contains a little more than two drachms of the powdered cubebs. Its dose can be regulated from this knowledge of its strength.*

LOZENGES OF CUBEbine.

Cubebine, 8 parts.

Mucilage of gum tragacanth. 1 part.

Liquorice powder, q. s.

To be made into lozenges, each containing six grains of cubebine.

THE OLEO-RESINOUS EXTRACT OF CUBEBS.

Obtained by distilling the cubeb-pepper with water, and separating the volatile oil thus formed; treating the residue with alcohol; drawing the latter off by distillation, evaporating to the consistence of syrup, and then mixing with the volatile oil obtained by the first process. This remedy is more active and certain than the powder of cubebs, and much pleasanter to take.

* The hydro-alcoholic extract of cubebs (Cubebine) is prepared by Labélonie, pharmacien, Paris.

104. Many other remedies may be resorted to in the protracted forms of chronic gonorrhœa, these are chiefly the preparations of iron; chalybeate waters; iodine, particularly in its combination with iron, so successfully employed by Ricord, Richard, and Henry;* lead,† cantharides, and turpentine.‡ In all instances, however, of chronic discharges from the urethra, this canal should be carefully examined to determine, if possible, the pathological conditions which keep up or are associated with the discharge; without this we must be at a loss for correct indications, we must prescribe at hazard, and our patient's disease may be prolonged indefinitely. It is often of great service to

* R. Ferri ioduret, gr. ij. ad x. or more.

Pulv. opii. gr. $\frac{1}{4}$.

Mucilaginis, q. s. ft. Pil.

Ter die sumend.

† R. Plumbi acetatis, ʒ j.

Bals. copaibæ, ʒj.

Pulv. glycyrrhizæ, q. s. ft. Pil. xxiv.

Dose.—One pill to eight. Employed with advantage by Desruelles in chronic gonorrhœa.

‡ R. Terebinthinæ chiæ.

Sanguinis draconis, āā. ʒ ij.

Olei terebinth. q. s. ft. Pil. xxx.

Dose.—From three to six or more in the day.

R. Guaiaci resinæ pulv.

Terebinthinæ chiæ, āā ʒ j. M. ft. Pil. xxiv.

Capt. iii. v. iv. bis terve die. In gleet, or chronic gonorrhœa.

employ small local bleedings from the vicinity of the urethra at the time we are using astringent or tonic injections, or the remedies alluded to in the present section.

OF MERCURY.

105. I have hitherto said nothing about the use of mercury in gonorrhœa, because I do not believe in the specific effect of mercury over purely gonorrhœal diseases. Dr. Wallace employed it constantly in gonorrhœa till the system was brought slightly under its influence, with the view "of preventing bubo and secondary symptoms." I believe this opinion to have originated, as I have before stated, in a false notion of the pathology and nature of this disease. Whilst, however, I deprecate the use of mercury as a specific remedy in gonorrhœa, I think it a remedy of great utility in the latter stages of this affection, exhibited with a view of removing those morbid changes in the urethra which long-continued chronic inflammation has occasioned. With this object it may be advantageously employed in the manner laid down by Dr. Wallace. "When," says this author, "gleet or chronic gonorrhœa is connected with an indurated state of the urethra, &c. it will be prudent to submit the patient to a short course of mercury, partly because the indurated and narrowed state of the urethra often depends on the specific effects of the venereal poison, and partly because, even when this is not the case, an alternate course of mercury frequently offers the best remedy. Indeed, I have on many occasions experienced much pleasure from observing not only the gleety discharge,

but also the contracted and indurated state of the urethra to disappear, as soon as the patient's constitution was brought under the specific influence of mercury."* Dr. Wallace recommends, as exceedingly efficacious, a combination of calomel with antimony and opium.†

OF INJECTIONS.

106. Many surgeons object to the use of injections in gonorrhœa, fearing that they frequently occasion stricture and other morbid conditions of the urethra. I am however of opinion, with Dr. Wallace and Ricord, that a long-continued irritation or inflammation of the urethra is much more likely to give rise to these evils, and hence it is of consequence to cure a gonorrhœa by the means which will accomplish this object most quickly, at the same time they do it safely. It is true, that injections require great caution in their use, and their injudicious employment is frequently followed by serious consequences, but in these instances, the blame rests with the surgeon and not with the remedy. Injections should generally be used twice or three times in the day, and the fluid injected

* Op. cit. p. 285.

† R. Hyd. chlorid., gr. j. ad iij.
Pulv. antimon., gr. iij. ad v.
Pulv. opii, gr. ss. M.
Ext. aromat., q. s. ft. Pil.

Nocte maneque sumend.

If the disease occur in a gouty or rheumatic constitution, colchicum may be substituted for the antimony in the above prescription.

should be made to remain in the urethra a minute or two before it is discharged.

107. In the acute forms of gonorrhœa, injections are inadmissible; they should be employed as soon as this stage is passed, and in cases chronic or indolent from the commencement they may at once be used.

To cut short a gonorrhœa at once, when a patient applies before the acute stage has commenced, Ricord prefers injections of the nitrate of silver, which he employs of the strength of two grains to eight ounces of distilled water,* gradually increasing the strength as long as no irritation is produced. When the acute stage has passed this surgeon generally employs the acetate of lead† for a few days, but has recourse again to the nitrate of silver in stronger solution, if the lead does not quickly succeed. Dr. Wallace recommends the nitrate of silver in the proportion of fifteen grains to the ounce of water, Desruelles, a scruple to the pint, and likewise a pommade to smear over bougies and then passed into the urethra.‡ Dr. Wallace employs the ni-

* R. Argent. nit. gr. ij.
Aquæ distillatæ, ℥ viij. M. ft. Injectio.—*Ricord.*

† R. Plumbi Acetatis, ℥ ij.
Aquæ Rosæ, ℥ vj. M.

This strength is for the male urethra, if used as an injection in vaginal gonorrhœa, &c. the quantity of the acetate of lead may be increased as far as an ounce to the pint of water.

‡ R. Argent. nitratis, ℥ j.
Aquæ ferventis, o j. M.
As an injection in chronic urethritis.

trate of silver as long as any morbid sensibility exists in the urethra, when this has ceased, and the discharge still continues, he has recourse to solutions of the bichloride of mercury, the acetate of zinc, or the sulphate of copper; the chloride of zinc has also been lately very successfully employed.*

109. A vast variety of injections are employed in the various forms of chronic gonorrhœa, those which I have already indicated are most generally used and successful. When the disease has become perfectly atonic, and all morbid sensibility has disappeared, or when the patient is merely teased with a drop or two of mucous discharge oozing from the urethra once or twice in the day, injections of wine are used extensively both by Ricord and Desruelles, and with

R. Adipis, ℥j.
Argent. nitratis, gr. iv. M.

Of use in the same affection, smeared upon a bougie, and thus passed into the urethra.

* R. Hydrarg. bichlorid., gr. iv.
Aquæ dist., ℥viij.—*Wallace*.

R. Zinci acetatis, gr. xij.
Aquæ, ℥viij. M.

R. Cupri sulphatis, gr. xij.
Aquæ, ℥viij. M.

R. Zinci chloridi, gr. viij.
Aquæ, ℥viij. M.

The strength gradually increased.

much success, alone, or combined with tannin.* The infusion of galls with alum is also useful,† and lately M. Ricord has employed with great success the ioduret of iron. In weak solutions the ioduret of iron has frequently arrested the gonorrhœal discharge in four or five days, in other instances it has brought on an acute attack of urethritis, but in these instances, when the inflammation has subsided, the patient has been cured of his gonorrhœa. In these instances the average duration of the treatment has not been more than seven or eight days; in a third series of cases the patients have been unable to bear the irritation which injections of the ioduret of iron occasioned, and consequently its employ was given up.

* R. Aquæ rosæ, $\bar{3}$ iv.
Vini rubri, $\bar{3}$ ij. M.—*Ricord.*

The quantity of wine gradually increased, till at length it may be employed pure. Desruelles adds a sixth or an eight part of brandy.

R. Vini rubri, $\bar{3}$ vj.
Tannin, gr. xvij. M.—*Ricord.*

For the male urethra; for the vagina, the quantity of tannin may be doubled, or still further increased. I have found this injection very valuable.

R. Gallæ, 3 j. ad 3 ij.
Aluminis sulph., $\bar{9}$ ij.
Aquæ ferventis, $\bar{3}$ viij. M. ft. Injectio.

* R. Ferri ioduret., gr. iij.
Aquæ dist. $\bar{3}$ vj. M.—*Ricord.*

The quantity of the ioduret may be gradually increased. Its employ requires caution and watchfulness.

110. It will often be found of great service to vary the character of the injection, when one appears, from continued use, to have lost its effect : we shall also find that some patients bear one kind of injection better than others ; hence I have found persons much benefited by port wine and tannin, who could not bear the weakest solution of the nitrate of silver.

112. Ricord, Fricke of Hamburg, and Desruelles agree in opinion, that gonorrhœa is kept up commonly from the contact of the two sides of the urethra ; and hence it was proposed by Fricke to introduce, by means of an elastic gum catheter or bougie, a fine piece of lint into the urethra, and let it remain there, removing it only at each period of making water ; the lint may be employed dry, or soaked in any astringent injection. The practice has been followed by great success.*

112. Sometimes all our remedies are unsuccessful in checking the discharge ; it then becomes necessary to examine carefully the urethra, to discover upon what pathologic condition the continuance of this depends. In cases of morbid sensibility of one portion of the canal only, the solid nitrate of silver should be directly applied to it, by means of the “ port caustic ” of Lallemand, or any other convenient instrument. When most other means have failed, and a running still continues, with uneasiness, or morbid sensibility in the urethra generally, or in several parts, Ricord considers it advantageous to pass the solid nitrate of silver over the whole affected surface of the urethra.

* See Ricord, *op. cit.* p. 745, and in the *Gazette des Hôpitaux* ; also Desruelles, *op. cit.*, and Fricke, *Lettres au Dr. Desruelles*, &c.

SECTION V.

*Of Diseases which succeed to Gonorrhœa
in the Male.*

113. THESE are more commonly seated in the urethra, or in the testicles. The first comprising the various varieties of strictures, the second those diseases in the testicles and their appendages, which are strictly connected with gonorrhœal inflammation of the urethra. The consideration of the former does not properly belong to the object of this work; we therefore refer the reader to the numerous monographs on stricture, particularly the excellent one of the late Théodore Ducamp,* merely remarking in this place, that strictures of the urethra are almost always the consequence of protracted gonorrhœal inflammation, seated in one or more points of the urethra, which ultimately extending to the subjacent tissues occasions thickening, induration, or vegetations. These are the diseases which, in the expression of Desruelles, an imprudent youth bequeaths to adult age, and which in certain instances, at more advanced periods, render the patient's life miserable.

114. The most frequent of all the diseases of the testicle which accompanies or succeeds to gonorrhœa, is inflammation of the epididymis, epididymitis. This occurs so constantly and regularly as a consequence of

* Th. Ducamp, *Traité des Rétrécissements de l'Urètre, et des moyens à l'aide desquels on peut détruire complètement les obstructions de ce canal.* Paris, 1825.

gonorrhœa, that M. Ricord applies to it the name of "epididymite blennorrhagique." This disease is commonly described under the terms of orchitis, hernia humoralis, or swelled testicle: the dissections of Ricord prove that these names are misapplied, and the disease is generally confined to the convolutions of the epididymis.

115. This disease hardly ever occurs during the first,* or even in the second week of a gonorrhœa, more commonly in the third. Ricord believes the disease may originate in two ways, from sympathy, and from the direct propagation of inflammation from the ejaculatory ducts to the vesiculæ seminales, through the vas deferens to the epididymis, his dissections have proved this. Cullerier also believes that it is owing to the direct propagation of disease along the seminal passages, and not to metastasis. The longer the continuance of a gonorrhœa, the more likely is it to be thus complicated; the best way to prevent it is to cure the disease as quickly as possible. Amongst other causes are exercise, constipation, the neglect of the suspender, free living, and the use of stimuli during the course of a gonorrhœa.

116. If gonorrhœal epididymitis occur with any degree of intensity, the disease soon involves the neighbouring tissues of the testicle; and hence we observe speedily succeeding to it, or complicating it, diseases of the tunica vaginalis, or testicle itself, and very commonly inflammatory hydrocele, œdema, erysipelas, or phlegmon of the scrotum.

* Not once in three hundred times.—*Ricord*.

117. This disease is prevented by the antiphlogistic treatment of gonorrhœa, the use of the suspender, and the early employment of specific anti-gonorrhœal remedies, as copaiba, cubebs, &c. When once set up we must employ general bleeding, if circumstances require it, or local bleeding from the region of the spermatic chord, or perineum; the patient must keep the testicle suspended, and remain in the horizontal position. To relieve the pain, which is sometimes very acute, Cullerier employs frictions upon the testicle with oil, opium, or belladonna, &c.* When the acute symptoms have in some measure subsided, the most efficacious practice is compression of the testicle, strapping it with plaster of mercury, and ammoniacum.† This

* R. Olei camphorati, ℥j.
Tinct. opii, 3j. M. ft. Liniment.—*Cullerier*.

or,

R. Adipis, ℥j.
Ext. Opii, 3ij. M.

or,

R. Adipis.
Ext. Belladonnæ, āā ℥j. M.

† The Emplastrum “de Vigo,” c. Hydrarg. is generally employed for this purpose in the French Venereal Hospitals; it resembles much, though is in some points superior to the Emp. Ammoniaci cum Hydrargyro of the London Pharmacopœia. The form is as follows:

R. Hydrargyri, 95 pts.
Styracis liquidæ, 48 pts.

These are to be rubbed together till the globules of mercury disappear; then melt together, in a separate metal pot,—

practice generally succeeds in curing the sympathetic forms of epididymitis in five or six days, and has the advantage of not confining the patient. Fricke, of Hamburg, employs it from the commencement of the disease, however acute it may be; Cullerier and Ricord have thus employed it with complete success.

117. The *emplastrum ammoniaci c. hyd.*, or the *emp. Vigo c. hyd.* are to be cut into thin straps, and applied in a circular manner round the testicle, drawing this organ, as far as can be done without pain, to the bottom of the scrotum, and taking care not to pucker the skin in applying the plaster. The first strap is placed circularly round the testicle at the insertion of the cord, compressing the organ as much as the patient can bear; a succession of straps are then applied till the organ is covered: a second series of straps are then placed over the circular ones from below upwards, and over these again a few more circular ones to keep the whole in place. If the pressure of the plaster occasions pain or irritation, the straps are to be removed

Emp. Plumbi,	312 parts.
Ceræ flavæ,	16 „
Terebinthinæ puræ,	16 „
Picis Burgund.,	16 „
Gum. ammoniaci,	10 „
Olibani,	5 „
Myrrhæ,	5 „
Croci in pulv.	3 „

These ingredients are to be well mixed, first amongst themselves, and then with the mercury and styrax. The plaster thus made is to be spread upon linen, calico, or thin leather, and then cut into strips of convenient thickness.

till the inflammation or sensibility are more diminished ; in many instances the patients experience relief directly the testicle is supported by the plaster.

118. During the local treatment of the disease, the patient is to persevere in the use of specific anti-gonorrhœal remedies ; the copaiba, cubebs, and a mild mercurial course may be recommended, to remove any thickening or enlargement which remains after the more acute symptoms of epididymitis and its complications have subsided.*

SECTION VI.

Of Gonorrhœa in the Female.

119. GONORRHŒA in the female is for the most part a disease of very different character to that in the male ; the anatomical structure and functions of the organs implicated modifying the affection both in its seat, its course, its treatment, and its terminations.

120. This disease recognizes for its pathology acute or chronic inflammation of the vulva, vagina, uterus, or urethra ; the inflammation itself being of a specific

* Ricord employs the following form of pill in these cases :

Rx. Hydrarg. chlorid. ʒj.
Pulv. v. ext. conii, ʒ ij.
Sapo. dur. ʒ ij. M. ft. Pil. xxiv.

character, the result of impure cohabitation, and capable of producing gonorrhœa in the male. In the female, gonorrhœa is not confined to the urethra ; it is more commonly seated in the vagina, and in the mucous membrane reflected over the neck and mouth of the uterus.

121. In the more acute forms of the disease, a strictly antiphlogistic treatment and regimen must be adopted : general or local bleeding, aperients, the warm bath, emollient fomentations and poultices, and injections or rather continual irrigations of the parts, by means of a self-acting syringe, with sedative, demulcent, or slightly astringent fluids. When local bleeding is thought necessary the leeches should be applied on the inside of the thighs or in the folds of the groin ; these situations are preferable to the perineum, or the labia. As it must be uncertain whether the discharge is complicated with ulcers, it is always well to keep the leech-bites free from the contact of the discharge, to avoid the possibility of inoculation, and thus the probable occurrence of venereal sores.

122. In the earlier and more acute stages of the disease, it is not prudent, and sometimes not always safe, to have recourse to the speculum to ascertain whether the gonorrhœa is complicated with venereal ulcerations or not ; our first duty is to subdue the acute inflammatory symptoms, and then if the chronic stage be protracted, or do not yield to treatment, and there is reason to suspect the existence of deep-seated ulcers, the speculum may with propriety be used to clear up our diagnosis.

123. Adopting the idea of Fricke, the French syphi-

lographers, more particularly M. Ricord, believe that gonorrhœa in the female, as well as in the male, is protracted by the contact of the two sides of the urethra, or vagina, &c. ; and hence, in the case of the female, M. Ricord recommends the introduction of a soft plug of charpie, or lint, which may be changed twice a day, and, during the intervals, kept constantly moist with injections of any kind, suited to the nature of the case, thrown over it with a syringe ; the plug may likewise be dipped in these injections before it is introduced. This remedy has the double advantage of separating the two sides of the vagina, and thus preventing the irritation their contact occasions, and of applying a direct topical medication to the parts affected—a circumstance of vast importance where internal or general treatment is of comparatively little value.

124. The internal treatment of gonorrhœa in the female is very limited. The remedies which are considered specific in this disease in the male, as copaiba, cubebs, &c. are here almost inert. Their action upon the vaginal forms of the disease is very feeble, a little more energetic over the urethral varieties. Aperients, with diluent and demulcent drinks, constitute nearly the whole of our resources, under the head of internal treatment. Mercury appears useless in the uncomplicated forms of the disease, except with a view of removing any chronic enlargement or thickening which may be the result of long-continued chronic inflammation. The treatment is then to be the same as that we recommended, when speaking of the use of mercury in gonorrhœa in the male.

125. The local treatment of acute vaginitis or urethritis in the female consists in the topical abstraction of blood, if necessary; and during the more severe stages the use of emollient and narcotic fomentations and injections, with or without the use of the plug. This treatment, however, should not be continued if ineffectual; for (says M. Ricord) we frequently find rest, local bleeding, emollient and narcotic applications of little use, the patient still continuing to suffer from severe pain, and an abundant puriform discharge, whilst the mucous surfaces of the vagina, &c. continue red, and turgid with blood. The nitrate of silver may now be employed with the best effects, either by passing the solid nitrate over the diseased surface, or in form of injection;* keeping the vagina plugged with a dry soft piece of lint in the intervals of the injections. When the acute stage has in some measure given way, M. Ricord has early recourse to astringent injections, with a view of preventing the discharge assuming the chronic form, and thus continuing for an indefinite period. He employs here chiefly the acetate of lead,† and the sulphate of alum.‡

126. When the more acute stages of disease are passed, and the chronic form continues but little influenced by

* R. Argent. nit. gr. x.
Aquæ, ℥ j. M. ft. Injectio.

† R. Aquæ, o ij.
Plumbi acet: ʒ iij. ad ℥ ij. M. ft. Injectio.

‡ R. Aquæ, o ij.
Aluminis sulph., ʒ iij. ad ℥ ij. M. ft. Injectio.

remedies, it will be well to examine the mucous surfaces of the vagina, &c. by means of the speculum. These may be found in several pathologic conditions; simply red, turgid, and hypertrophied, or covered with red isolated patches, apthæ, vesicles, pustules, or superficial ulcerations. After the continuance of the disease for some time, the os uteri is always more or less affected; its lips are turgid, red, and everted, and generally covered with small ulcerations, granulations, or other changes, the result of chronic inflammation.

127. In the chronic forms of the disease unattended by change of structure, Ricord recommends, as local applications or injections, solutions of tannin,* Kino,† the infusion of roses with bark,‡ alum or myrrh and catechu,§ &c. &c. The solutions of the chlorides of soda, or lime, are chiefly of use when the discharges are offensive, and accompanied by ulceration.|| When

* R. Tannin, ʒ ij. ad. 3 j.
Vini rubri, ʒ vj. M.

† R. Gum. kino, 3 j. ad. 3 ij.
Aluminis sulph. ʒ j. ad. 3 ss.
Aquæ ferventis, h. ij. M.—*Swediaur.*

‡ R. Infus. rosæ comp. o ij
Pulv. cinchonæ, ʒ ij. M.
(Hotel Dieu.)

§ R. Pulv. catechu.
P. myrrhæ, āā 3 j.
Liquor. calcis, ʒ iv. M.

|| R. Solut. sodæ, chlorid. pt. 1.
Aquæ, pts. 12 ad. 16. M.
(Hôpital des Vénériennes.)

the gonorrhœal discharge is secreted by the mucous surfaces of the vagina, these applications may be thrown up with an ordinary female syringe; when, however, the os uteri or its neighbourhood are the seat of the disease, it becomes absolutely necessary to use the plug of lint, or a piece of sponge, to keep the remedies in contact with the affected surfaces to which they are wished to be applied.

128. When the chronic state of gonorrhœa in the female is accompanied by any alterations of tissue, these changes demand our first attention, since it is useless to attempt to check the discharge as long as these conditions remain upon which it depends. Ulcerations, or papulous granulations (says M. Ricord) should be cauterized with the nitrate of silver, or, what is better, with the nitrated acid of mercury.* This caustic is to be applied by means of a camel-hair pencil, or a small roll of lint, to touch the diseased surfaces, these having been previously cleansed by dry lint, or a soft sponge. When ulcerations themselves have destroyed the tissues more or less deeply, caustics must be employed with extreme caution. In these cases M. Ricord covers the surface of the ulcers with calomel, upon

* R. Hydrarg. proto-nitratis, pt. 1.
Acid. nitric. pts. 8. M.

The above solution may be applied also as an injection, diluted to suit the feelings of the patient and the character of the disease. M. Ricord has employed it diluted with twelve parts of water as an injection in uterine gonorrhœa, &c.; its use sometimes occasions pains and violent hysterical symptoms attended with stupor. Owing to these circumstances M. R. generally prefers a solution of the nitrate of silver of the strength above indicated.

which he places some dry soft lint, and afterwards passes into the vagina some lint soaked in one of the astringent or tonic injections previously mentioned.

129. Where the disease has extended more or less into the uterus, and has assumed a form of disease termed uterine gonorrhœa or catarrh, M. Ricord prefers injections of the nitrate of silver, in the proportions of six grains of the salt to the ounce of water.

130. A true vaginal gonorrhœa may be confounded with acute or chronic vaginitis arising from other causes; and hence arises a question of great delicacy and importance, whether we are in possession of any facts which will enable us to establish a correct differential diagnosis between vaginitis as the result of impure sexual intercourse and those forms of disease which are the result of other causes? "The diagnosis of leucorrhœa," says Dr. Churchill,* "is, according to all authorities, extremely difficult." Sir C. M. Clarke seems to think it impossible. There are some cases, however, in which all doubt may be removed by an examination with the speculum. Whenever the peculiar erosions or superficial ulcers of the mucous membrane covering the cervix uteri, described by Ricord, are discovered, and which occur in nineteen out of twenty acute cases, we can have no hesitation in pronouncing the disease to be gonorrhœa.

131. In gonorrhœa the discharge is generally more frequent, and the inflammation more acute than in leucorrhœa. In the former disease the glands of the

* Outlines of the Principal Diseases of Females, &c. Dublin, 1838. pp. 23-4.

groin are more frequently enlarged, tender, and painful, and in gonorrhœa the affection extends to the urethra in about two thirds of the cases.*

132. I have stated, in the article "Balanitis," that I have seen severe inflammation of the glands and prepuce, with ulcerations, occur after connexion with females suffering from leucorrhœa. I shall relate a case of this kind which made a great impression upon me, from the anxiety and distress it occasioned in the family in which it happened. A lady of most exemplary and irreproachable character, the mother of nine children, in the seventh month of her pregnancy of her tenth child, became affected with itchings and swellings of the labia, and a muco-purulent discharge from the vagina: her husband consulted me a few weeks afterwards, having certainly had no other connexion, with severe inflammation, and excoriation of the surface of the glans and prepuce, from which oozed a muco-purulent fluid. Some slight astringent washes soon removed the disease, which was thought of no more. The lady, however, became again pregnant, and about the same period of her pregnancy, her leucorrhœa again returned more severely than before. Her husband again consulted me: the internal surface of the prepuce and glands were swollen, intensely red, and painful, and covered with small apthæ; in some places the mucous membrane was denuded, exposing a deep red surface, secreting a thick pus. The general plan of treatment recommended in the article "Balanitis" was

* See the paper of M. Ricord, *Mémoires de l'Académie Royale de Médecine*, 1833.

followed, but the disease became exceedingly tedious and troublesome; no sooner had one crop of apthæ been removed, than a second made their appearance; the denuded surfaces spread, and deepened into foul conditioned ulcers, till at length a complete phymosis was established, and it was not till after many weeks of treatment that the patient was perfectly restored.

133. This case certainly proved that ulcerations of a bad character may follow connexion with females labouring under leucorrhœa, but the ulcers themselves are not of a specific character, and yield to a general plan of treatment. I have never seen a true urethral gonorrhœa succeed to connexion with females suffering from leucorrhœa only. I consider it impossible that constitutional or secondary symptoms should be the consequence of diseases of such a character.*

Of the Second Class of Primary Syphilitic Diseases.

ULCERS, THEIR VARIETIES AND CONSEQUENCES.

134. M. Ricord establishes three forms under which the primary venereal sore more commonly makes its appearance: in form of pustule; as a simple ulcer or

* In these remarks, although detailing the results of my own experience, I merely reiterate the opinions of Hunter. Opposite results are said to have taken place. I believe, in these instances, the disease, on the part of the female, to have been imperfectly or incorrectly diagnosticated; holding, with Ricord, the belief that it is utterly impossible to know the precise nature of the diseases of the female organs of generation, without the use of the speculum. Hence all statements of contagion should be received with caution where this instrument has not, in the first instance, been used.

chancre, then termed by the French syphilographers "chancre d'emblée;" and as an ulcer succeeding to phlegmonous inflammation, which has been seated in a follicle, the cellular tissue, or lymphatic gland, vessel, or ganglion. It is also important here to remark that the primary syphilitic ulcer has two marked and distinct stages: one of ulceration, the second of reparation or granulation; each demanding a separate and distinct treatment both locally and constitutionally.

135. The venereal pustule, if presented to us sufficiently early, and conveniently situated, should be removed by the knife or scissors, or should the fears of the patient prevent this, it is to be opened with the point of a lancet, and the whole internal surface well cauterized with a crayon of the nitrate of silver, and afterwards treated in the manner we shall direct for the management of the primary venereal ulcer.

136. When we are called upon to treat the simple primary venereal sore during its first stage, or that of ulceration, our first object is to destroy the diseased surface, and reduce it to the condition of a simple sore. This is to be accomplished by means of the nitrate of silver, with which the whole surface of the sore is to be well cauterized, taking care to avoid any parts of the sore, if such there be, where the process of granulation has already commenced.*

* It very frequently happens (says M. Ricord) that the nitrate of silver is not sufficiently powerful to destroy the lardaceous surface of some chancres, and hence he substitutes for it other caustics, as the potassa fusa, or the potassa cum calce. M. Delpech, of Montpellier, employs the nitrated acid of mercury, "acid nitrate de mercure," for the preparation of which I have elsewhere given a form.

137. "It is," says Dr. Wallace, "during the ulcerating stage of primary syphilis, or when the process of granulation has only partially commenced, that our assistance is for the most part sought; and when the disease is in this stage, there is no doubt on my mind of the propriety or practical utility of immediately applying the nitrate of silver in such a manner as to destroy the diseased surface. I have treated, over and over again, primary syphilitic ulcers with this caustic, and without it, under circumstances as nearly similar as possible in every respect, and the result has uniformly demonstrated the very great advantages of the former over the latter mode of proceeding. The nitrate of silver should be pointed before using, and then rubbed carefully on every part of the ulcerating surface (previously cleared by poultices or emollient fomentations of all incrustations), until the edge of the ulcer be rendered black, and the surface of a deep ash colour. But should any of the ulcerated surface have entered on the stage of granulation, that portion is to be avoided, and the application of the caustic confined, as much as possible, to such parts of the sore as are still in the stage of ulceration."*

138. Whilst the chancre continues in the state of ulceration, the application of the nitrate of silver must be repeated, waiting for the separation of the eschar produced by the caustic, to ascertain clearly the condition of the sore before we reapply the caustic. After the application of the nitrate of silver, the ulcer should be covered with a piece of fine soft lint, spread with some

* Wallace, *op. cit.* pp. 92-3.

simple ointment,* over which may be placed a bread-poultice, or fine linen moistened in the liquor plumbi diacetatis dilutus, and the whole covered with a piece of oiled silk, or Liston's isinglass plaster.

139. The local dressings to chancres, employed by M. Ricord at this period, deserve particular notice. They consist in the application of aromatic wine,† medicated either with tannin,‡ with opium,§ or with both.

* One of the best applications as an ointment at this period is the opiate cerate of the French Codex.

Rx. Adipis, lb. j.
Vini opii, ℥ j. M.

A strong aqueous solution of opium may be used where ointments are objected to, more particularly if the patient suffer much pain. Ricord employs the following form :

Rx. Decoct. papaveris, v. conii. ℥ viij.
Ext. opii purificati, gr. viij. M.

† The aromatic wine of the French Codex, employed by M. Ricord in the treatment of chancres, is composed of four ounces of aromatic herbs, (rosemary, rue, sage, hyssop, lavender, absinthium, organum, thyme, laurel leaves, the flower of the red rose, camomile, mellilotum, and elder,) digested in two pints of red wine for eight days.

‡ Rx. Vini aromatici, ℥ viij.
Tannin, ℥ ij. M.

§ Rx. Vini aromatici, ℥ viij.
Tannin, ℥ ij.
Ext. opii pur. ℥ ss. M.

These three preparations are extensively employed by M. Ricord in the local treatment of primary venereal sores on the genitals and elsewhere. During the first few days he is satisfied with this local treatment; the application of the nitrate of silver, and a gene-

140. The sores are to be carefully washed with one or other of these preparations, and afterwards covered with soft lint, moistened in them. Care must be taken, in renewing the dressings, to soften the lint well before it is removed, so that no part of the surface or surrounding skin may be torn away with the lint.

141. These preparations possess the advantages of modifying the surface of the sore, of thus promoting its rapid cicatrization, of diminishing the secretion of pus from its surface, and, by their astringent properties acting upon the surrounding tissues, of preventing the extension of the disease, or the formation of fresh chancres, a circumstance so common in all other modes of dressing. The use of the aromatic wine with or without tannin is contra-indicated when the surface of the sore is dry, furnishing no secretion and remaining indolent, or again where the edges being indurated these dressings seem to increase the induration. In all other circumstances these are the local applications most commonly employed by Ricord.

142. The state of the economy at large demands much attention on the first appearance of a venereal ulcer; and we must here bear in mind the golden rule of Ricord, that the varied appearances of primary venereal sores, and the characters they afterwards assume de-

ral antiphlogistic treatment if necessary. Should no benefit result in five or six days, and the edges of the ulcers become thick or hardened, without any disposition to heal, a modified mercurial course is adopted. I am in the habit of using new port wine, rendered aromatic or not, as the vehicle for the application of the tannin or opium.

pend very much, if not altogether, upon the natural constitution of the patient, and upon the particular condition of his health at the time he imbibes the venereal poison. Thus, in many instances, a primary venereal sore upon the penis produces the most intense local inflammation and fever. Under these circumstances the patient must be treated upon general principles: he should be bled generally or locally, and the bowels kept freely open; he should be restricted to the simplest diet, and kept quiet in bed, whilst emollient fomentations or poultices are applied to the sore. The local inflammation and fever are first to be removed, in these cases, before we think of resorting to the nitrate of silver, and should the stage of ulceration be arrested by these means, and the sore assume a disposition to heal, it will not be necessary, or even safe, to use it at all, but the granulating ulcer must be treated in the way we shall presently mention.

143. Cullerier, in the treatment of the primary venereal sore, confines his patients to bed, and keeps them upon low diet; if there be any local inflammation or fever, he bleeds them from the arm, and covers the sore with a poultice, the opiate cerate, or a strong aqueous solution of opium. All local inflammation and accompanying fever are to be subdued before the use of the nitrate of silver; and, during the two or three days which are generally spent in its application, the patient should live low, keep his bed if possible, and take daily aperients, unless specially contra-indicated. This plan has the twofold object of preventing or mitigating the inflammation which may be caused by the application of the caustic, and of preparing the patient for any

subsequent general or local treatment the nature of the sore may require.*

144. During the earlier periods of the local treatment of chancre, M. Ricord particularly insists upon a regimen suited to the constitution of the patient. Under this point of view no exact rules are to be laid down. In some cases a purely antiphlogistic treatment becomes necessary, whilst in others tonics and a nourishing diet are required. The state of the general health requires particular attention, for it must be recollected that, from a bad constitution, or one enfeebled by previously existing disease, frequently result those complications and severe local affections, so frequently observed during the progress of primary venereal sores.

145. Having arrested the progress of ulceration in the primary venereal ulcer, and brought it to the condition of a granulating sore, a change in the plan of treatment becomes necessary, both constitutionally and locally. If mercury be used, now is the time to have recourse to its employ with the full hope of realizing its most beneficial effects. It is not necessary here to enter into any disquisition as to the comparative merits or results of the simple and mercurial plans of treatment. I know the balance is immensely in favour of a

* During those two or three days which are generally spent in the application of the caustic, the patient should be prepared by a purgative, and by regularity in his mode of living, for subsequent constitutional treatment; the *lotio plumbi subacetatis* may be applied without disturbing the dressing, by immersing the diseased part in it two or three times a day, or by rolling the penis in lint kept wet with this lotion, and covered with oiled silk.—*Wallace*, op. cit. pp. 97-8.

modified mercurial course, and, holding such an opinion, should be disposed, unless specially contra-indicated, always to recommend to my patient, at this period of his disease, a mild mercurial treatment.* I refer the reader to the section on the “Mercurial Treatment of Syphilitic Diseases,” for rules to regulate him in the exhibition of mercury; and to the section on “particular Preparations of Mercury, &c.” for forms for its employment.

146. The local treatment of the sore must also be changed when the granulating process has commenced; and as mercurial applications are generally injurious during the ulcerating stage of chancre, so are they beneficial during the stage of reparation. Dr. Wallace employs, as local applications during this stage, calomel and lime-water, mercurial ointment, the ung. hydrargyri nitratis, the bichloride in lime-water, or in distilled water: these applications being enumerated in

* The reader may consult, if he thinks proper, the works of Wallace, Ricord, Desruelles, and Cullerier, on the points here in question. He will find all admitting the superior efficacy of mercury in hastening the cicatrization of a primary venereal ulcer, and diminishing the risk of secondary symptoms. The last three—partisans of the simple treatment—recommend mercury, when the sore is indolent, does not cicatrize under the simple plan; when its edges are hard and elevated, or the sore leaves behind it, in healing, an indurated cicatrix.

Mercury, although not a specific against syphilis, is the most powerful therapeutic agent we can employ, in many cases, in its cure.—*Ricord*. I am far from rejecting the internal use of mercury in the treatment of the primary venereal ulcer. I believe that in many cases it is necessary, and even indispensable. See Cullerier, op. cit. p. 186; and the remarks of Desruelles, op. cit. pp. 313-5.

the order of their stimulating properties. Ricord's aromatic wine, with or without tannin, will be useful if the sore secrete much pus; if the surface of the sore be dry and foul, great benefit will be found by alternating the dressings with the wine, and some detergent ointment.*

147. The local applications must be varied to suit the actual condition and aspect of the sore: hence should it be painful, opium combined with the remedy we apply is useful.† Should the irritability of the ulcers be of the inflammatory kind, it will be necessary to leave off all stimulating dressings, and have recourse to emollient fomentations, and the simple or opiate cerate. Cullerier employs as topical applications, when the inflammatory symptoms have subsided, solutions of the nitrate of silver, sulphate of copper, mercurial ointment, or pommades of calomel and opium, or mercurial ointment and opium.‡ All these varied preparations may be found useful in various conditions of the surface of the primary venereal ulcer. The condition of the latter is the only circumstance that can guide us in their proper mode of application.

* R. Resinæ flavæ.
Gum. Elemi.
Ceræ flavæ, āā ̄j.
Ol. olivæ, ̄j vj.
Olei terebinth., 3 ij. M. ft. Unguent.

† R. Cerat. opiat. ̄j.
Hyd. chlorid. 3 ij. M.

‡ R. Cerat. opiat.
Ung. Hyd. fort., āā ̄j. M.

148. Dr. Wallace thinks topical mercurial preparations of great value in the treatment of primary venereal sores, and believes that, in some measure they supersede the necessity of an internal mercurial treatment. "In dispensary practice, and among the lower ranks of society, the internal administration of mercury, particularly at inclement seasons of the year, can seldom with safety be recommended. In such persons, and under such circumstances, topical applications are of infinite value. In cases of this kind I generally confine my treatment to them, in conjunction with the internal use of nitrous acid, and, by these means, succeed for the most part in healing the disease with rapidity. Cases treated in this way are also very rarely followed by secondary symptoms."*

149. We have hitherto treated of the regular primary syphilitic sore. We shall now consider some varieties in the seat and character of chancres.

* Wallace, p. 113.

SECTION VII.

*Of Chancres of the Urethra.**

150. THE existence of chancres of the urethra is admitted by Ricord and Cullerier, the latter of whom says, —we call the attention of practitioners to this species of ulcer, which is not so rare as some have supposed, and may, if mistaken, lead to serious errors in practice. Chancres of the urethra are characterized by the symptoms of gonorrhœa, (the discharge, however, is much less copious in the former disease than in the latter,) induration of the urethra, which may easily be felt externally, and occasionally by the formation of small abscesses, opposite the indurated portions of the canal. The chancre of the urethra is generally situated at its orifice or in the fossa navicularis; in these situations it may be generally seen, and our diagnosis is at once certain. In other instances, it is placed lower down, and then the diagnosis becomes difficult and embarrassing.

151. It is clear, both from the statement of the English and French writers, that discharges from the urethra are due to more causes than one; and hence is it that we find Dr. Wallace saying, “ that there occur cases of these discharges, in which we find mercury to act in the most salutary manner; and others again, in which the discharge will continue, and be, after a time, fol-

* Chancres larvés.—*Ricord.*

lowed by induration and bubo, and most probably, by secondary symptoms, unless this medicine be given.”* When we consider, the generally powerless effect of mercury over pure gonorrhœa, we cannot but suppose that these remarks of Dr. Wallace must refer to chancres or venereal ulcerations of the urethra, which an imperfect diagnosis has confounded with gonorrhœa.

152. In cases where muco-purulent discharges from the urethra continue to resist the usual methods of treatment we should resort to the means of differential diagnosis, so extensively practised by Ricord, of testing the character of the disease by inoculation. M. Ricord† has established that the inoculation of the skin of the thigh, the prepuce, or elsewhere, with the matter of pure gonorrhœa produces no result, or at best a negative one. The same inoculation with matter from the urethra, secreted by a chancre in that part, gives a characteristic pustule, and subsequently a chancre or sore of venereal aspect. In eighty-five cases of urethral discharges, thus tested by M. Mairion, at the military hospital of Louvain, four were found of true syphilitic character, and produced chancres by inoculation, the remaining eighty-one gave no result—they were cases of simple gonorrhœa.

153. The existence of chancre of the urethra being ascertained, the inflammatory symptoms are to be first subdued, by a treatment appropriate to the earlier

* *Op. cit.* pp. 248-9.

† See the Section on “Inoculation,” and the cases of “Chancres larvés,” in Ricord’s work, before referred to.

stages of gonorrhœa : leeches to the groin or the perineum, diet, rest, diluents, and cathartic medicines, with emollient injections. Afterwards we may resort to injections with aromatic wine, or solutions of the nitrate of silver, or the solid nitrate may be introduced, and the surfaces of the sores cauterized, if the inflammatory symptoms are not too acute, and the chancre situated within reach. It is useful to introduce a small plug of lint into the urethra, impregnated with the injection we employ, with a view of keeping the surface apart, and preventing any extension of the disease.

154. Mercury may be employed, in chancres of the urethra, at the period, and in the manner before recommended in the treatment of simple primary venereal sores, attending to the local aspect of the sore during its administration. The following case illustrates the practice of Cullerier in these forms of disease.

155. A man entered the venereal hospital, said to have suffered from gonorrhœa for twelve months, in the treatment of which copaiba, cubebs, and various astringents had been vainly employed by a variety of surgeons. The discharge, from the patient's account, had never been very profuse ; on pressing the urethra firmly there hardly issued some drops of pus. The glans was considerably swollen, and its summit the seat of an induration the size of a nut, surrounding the meatus. On separating the lips of the orifice a large chancre was discovered, which had burrowed itself deeply into the parietes of the canal. This patient had been submitted to several mercurial courses without benefit, because (says M. Cullerier) the local treatment

of the sore had been neglected. All internal treatment was now suspended ; a strict dietetic regimen and repose were directed to be observed, and leeches were applied from time to time on the ulcer itself. In the intervals a piece of lint, covered with opiate cerate, was kept in the urethra, emollient fomentations were frequently used, and the penis enveloped in a poultice. Under the influence of these remedies the induration soon disappeared, the sore became clean, and a few applications of the nitrate of silver were sufficient to effect a cure.

156. It is not necessary to say more on the treatment of chancres of the urethra ; when ascertained they must be treated on the principles of primary venereal sores on other parts. The only circumstance which leads us to modify the treatment is the situation in which the sore occurs.

SECTION VIII.

Of Phagedænic Primary Venereal Sores.

157. INSTEAD of following the regular course of primary syphilis, venereal ulcers sometimes assume a character of rapid ulceration, sloughing, or inflammation, to which the term phagedæna is applied. In treating the various forms of phagedænic chancres we must be guided, in the first instance, by the natural constitution of the patient, and the particular conditions of his health at the time of his becoming dis-

eased; the intensity and character of phagedæna, whether inflamed, foul, or irritable, commonly depending upon the general health of the patient, or upon the circumstances or situation in which he happens for the time to be placed. Hence we must guard against the indiscriminate use of mercury, and of attributing the violence of the disease to any unusual degree of violence in the venereal poison itself.

The local Treatment of Phagedænic Primary Syphilis.

158. The characters of phagedænic sores may generally be referred to three principal groups, marked either by rapid ulceration and sloughing simply, or by the same processes accompanied by severe local inflammation or irritability. In the first variety of these sores, we may proceed much in the same manner as during the ulcerating stage of regular syphilis. Ricord and Dr. Wallace both recommend the use of escharotics. The nitrate of silver may be employed, to destroy the diseased surface, or a solution of the potassa fusa, a mineral acid, the liquor arsenicalis, or the undiluted solution of the chlorides of lime or soda. The utility of alternate applications of the nitrate of silver, and the aromatic wine with tannin, are particularly insisted upon by Ricord. Alternate dressings of a strong digestive ointment* and the aromatic wine will

* R. Terebinthinæ, $\bar{3}$ j.

Vitelli ovi, $\bar{3}$ j.

Olei hyperici, $\bar{3}$ ss.

Mix the turpentine with the yolks of eggs carefully in a stone mortar; and add gradually the oil of St. John's wort.

be found exceedingly useful when the surface of the sore is very foul and disposed to slough.

159. In the inflamed variety of disease, local as well as general bleeding, is of great service: the former is carried to a great extent in the French civil and military venereal hospitals. Desruelles and Cullerier place the leeches in the centre of the sore; Ricord does so occasionally, but prefers, if it can be accomplished, to apply them in its vicinity, so also does Dr. Wallace: the only objection to this practice is the inoculation of the leech-bites, and consequently the formation of fresh phagedænic sores. The local dressings best suited to inflamed varieties of phagedæna are emollient or anodyne fomentations, poultices, or a strong aqueous solution of opium;* to these may be added the warm bath, medicated or not with mucilage or gelatin. The opiate cerate may be also employed with benefit.

160. In the irritable variety of the disease strong aqueous solutions of opium are very advantageous; but here, as in the first form, the use of the nitrate of silver, or some other escharotic, is exceedingly serviceable. Ricord prefers the former preparation: in such cases (says he) the nitrate of silver is the best sedative, as well as the most powerful antiphlogistic. Dr. Wallace touches the surface of the irritable phagedænic chancre with the nitrate of silver, the liquor arsenicalis, or strong nitrous acid. When the ulcer is surrounded by a diffused areola, caustics are occasionally

* R. Opii, 3 ij.
Aquæ, ʒ viij. M.

injurious, though not certainly so from such a symptom being present. When they disagree, opiate dressings must be relied upon,* or the digestive ointment, with aromatic wine or opium.† Whatever may be the character of the surface of the irritable phagedænic ulcer, the application of escharotics is generally beneficial, in those covered with a white or black slough. Dr. Wallace preferred the liquor arsenicalis, or the strong nitrous acid, to the nitrate of silver: he states that the former commonly improve the aspect of the sore, and lessen its irritability, when the nitrate of silver has failed to do so.

161. When the granulating or reparative process has commenced, the phagedænic ulcer must be treated in the same way as the regular primary venereal sore.

OF MERCURY.

162. There are many varieties of phagedæna, in which mercury is so beneficial as to be almost indispensable. This fact, even according to the testimony of Ricord, is proved by the practice of those who are partisans of the simple doctrine, and profess the greatest enmity to a mercurial treatment. When, in spite of the local treatment before indicated, the sore continues to spread, Ricord has recourse to mercury, first in the

* R. Ung. hydrargyri, $\bar{3}$ j.
Ext. opii, 3 j. M.—*Wallace*.

† R. Ung. digestiv. $\bar{3}$ ij.
Pulv. opii, 3 j. ad 3 ij. M.

form of local applications combined with opium, and secondly, given internally, or by friction. In the present state of science it is impossible to state what are the precise conditions of the phagedænic ulcer, in which mercury is indicated; it appears established only that the sore with indurated and elevated edges is almost always beneficially influenced by this drug.*

163. Mercury is considered as almost indispensable by Dr. Wallace in the treatment of the simple phagedænic primary ulcer: "Whenever we meet with a case of the simple phagedænic primary ulcer, if it has not been previously complicated by improper treatment, it will be necessary to subject our patient to a course of mercury (regulated according to the principles already laid down), and we shall always be gratified by the result. But if, on the other hand, the patient has already been dabbling with mercurial remedies, and if there be reason to suppose that his constitution has been, in consequence, more or less disordered, we shall act more judiciously by suspending for a time the use

* "Si, avec la doctrine physiologique, on fait partir la guérison d'un chancre du jour où l'ulcération est cicatrisée, sans inquiéter de ce qui reste après, elle sera quelquefois en apparence plus rapide par le traitement simple, et, dans les hôpitaux, les malades seront moins longtemps en traitement; mais si, pour dire un malade guéri, on attend que toute induration ait disparu, on trouvera la différence énorme en faveur du traitement mercuriel: l'induration, dans le premier cas, restant souvent pendant des temps fort longs, et mieux encore *jusqu'à production* bien plus fréquente d'accidents secondaires. Pour moi donc, j'ai recours au traitement mercuriel, toutes les fois qu'un certain degré d'induration accompagne un chancre, l'empêche de se cicatriser, ou persiste après sa guérison superficielle.—*Ricord*, op. cit. pp. 578-9.

of mercury; and endeavour by proper measures, but principally by attention to the mode of living of our patient, and by the use of the mineral acids with sarsaparilla, to restore the system to a state of tranquillity before we enter again on a mercurial treatment, which may, however, be then used with success."

164. Occasionally the form of simple phagedæna occurs with a white slough on the surface of the sore, and considerable induration of its edges. In these instances, both Wallace and Ricord recommend the immediate recourse to mercury. Its use must be discontinued, if, after having in the first instance been beneficial, a degree of febrile irritation is produced by its employ, and the sore, at first disposed to heal, becomes stationary and sensitive, and afterwards painful and spreading.

165. When mercury is used in the treatment of phagedænic primary syphilis, it should be discontinued if, in the sloughing variety, the surface assumes a dark or tawny colour in consequence of the intensity of the inflammation, or from any other cause. Its use must also be given up should the local inflammation increase whilst the patient is using the mercury, or should the surface of the sore become clear of slough without any diminution of the inflammation or irritation, or lastly, should the system of the patient become deranged, whilst we find any extraordinary difficulty in exciting the mercurial action, the disease at the same time remaining stationary.

166. Another important variety of phagedæna is the "phagedænic primary syphilis with black slough" of Dr. Wallace, which corresponds to the gangrenous phagedæna of Ricord. Here the disease must be treated

in the commencement on general principles, the inflammation must be subdued by anodyne fomentations, leeches, the local application of opium, and the remedies which have been already mentioned as useful in the inflamed conditions of primary venereal sores. When the process of inflammation and ulceration have been arrested, and the sore assumes a disposition to heal, a mild course of mercury may be adopted to hasten the cicatrization of the sore, and diminish the risk of secondary symptoms ; the use of this remedy to be given up if any of the conditions of the sore or the constitution above mentioned occur during its employ.

167. The free internal use of the nitrous and nitro-muriatic acids, with or without sarsaparilla, is particularly indicated in most varieties of phagedænic primary syphilis where the constitution will not bear the exhibition of mercury.

OF THE SIMPLE TREATMENT OF PHAGEDÆNA.

168. The simple treatment of phagedænic primary syphilis is framed with a view of diminishing all inflammation or irritation which may accompany the local disease, hence leeches and aqueous solutions of opium are the chief topical remedies employed. The following is the result of the experience of Desruelles on the treatment of phagedænic primary syphilis. That generally the treatment without mercury has been more successful than a mercurial course ; that leeches, sudorifics, and the warm bath have been more successful when combined with a solution of opium as a local application than when the dressings have been composed of mercury.

169. The local application of opium has always been useful when combined with the application of leeches, sudorifics, and mercurial inunctions. Most commonly, the simpler the local treatment the more successful, whether mercury has or has not been given.

170. The phagedænic ulcer is very commonly accompanied by severe inflammatory affections of internal organs : these complications frequently demanding a strict antiphlogistic treatment, during the progress of which the aspect of the sore generally improves.

*Of Bubo.**

171. Bubo may be of two kinds, either simple or syphilitic, and may be either a primary or secondary affection, succeeding either to chancre, gonorrhœa, or balanitis, or making its appearance without any one of these diseases having preceded it. The true venereal bubo is most commonly preceded by one of the affections I have mentioned, but may occur, though rarely, as a primary syphilitic symptom, it is then termed “bubon d’emblée.” Authors are divided as to the frequency of its occurrence under the latter form ; I believe it to be rare. It very commonly happens that the most formidable buboes succeed to affections so trivial that they have even escaped the observation of the patient ; and hence we shall frequently, when called to treat buboes which are said to have been preceded by no other syphilitic affection, discover, on drawing back

* Adenitis.

the prepuce, a slight balanitis or excoriation, or the fresh cicatrix of some trivial ulcer. The syphilitic bubo may, however, occur as a primary symptom.

172. Bubo may be, as I have said, either simple or syphilitic, sympathetic or virulent. Ricord has instituted the test of inoculation as a means of differential diagnosis between the two. The virulent bubo---that arising from the absorption of pus from a chancre, is a disease precisely similar to chancre, differing from it only in its seat, and in the anatomical organization of the parts in which it is seated. The true venereal bubo is the only one which gives a characteristic pustule by inoculation; and is the only certain means of enabling us to determine whether a bubo is venereal or sympathetic. In cases where bubo occurs as a primary symptom, this test becomes of the utmost importance, since by its results alone can we be led to frame a rational plan of treatment.

173. The causes of bubo are various: in addition to their true venereal origin, they frequently arise from excessive indulgence in venereal pleasures with a healthy female; they may also result from fatigue, long journies taken on foot, sudden and violent exertion, or from ulcers situated upon any part of the lower extremities. It may generally be assumed that the bubo d'emblée is not syphilitic, so rare is its occurrence as a venereal affection in this form. Any stimulus, acting for a longer or shorter period of time upon the parts contained in the inguinal region, is liable to be followed by simple bubo.*

* See the remarks of M. Beaunez, on this subject, *Journal de Médecine et Chirurgie pratique*, Art. 427 and 936.

174. It is of great importance to the patient that bubo should be dispersed if possible, and not suffered to suppurate, the latter process involving a long and most troublesome disease, fraught with endless inconvenience, pain, and even danger. In the first stage of bubo, when the inflammatory symptoms are not marked, M. Ricord recommends rest and compression : this author, has remarked that, in patients wearing trusses buboes are seldom if ever developed on the side where the pressure of the truss is acting, but on the opposite one ; hence in the first stage of bubo, that of mere enlargement, without any acute inflammatory action or pain, a well regulated pressure, by means of an appropriate bandage or apparatus, is frequently successful in dispersing the tumour. This plan of treatment is above all useful in the bubou d'emblée. It must be associated with an antiphlogistic regimen, rest, and gentle aperients.

175. The same plan of treatment may be followed in the treatment of the true syphilitic bubo, unattended by much pain or inflammation. In this stage, unless specially contra-indicated, mercury may be employed to assist the resolution of the tumour. The primary syphilitic bubo, may (says Dr. Wallace), in its first stage, be resolved in ninety-nine cases out of a hundred by mercury ; if this medicine be used after the plan recommended for primary syphilis, and if its operation be assisted by rest, laxatives, abstinence, and cooling lotions.* It is well, in reference to this opinion, to remark, that a vast number of those buboes which suc-

* Op. cit. p. 356.

ceed to true chancres are sympathetic, that is, when they suppurate, they do not furnish or secrete a specific pus. Hence it must be evident that the general employment of mercury is, to say the least, unnecessary, except so far as it may be used with a view of controlling inflammatory action. Cullerier thinks that at this period, uncertain as we must be as to the true character of the bubo, that it should be treated as a pure and simple inflammation. When accompanied by chancre it is of vast importance to our success in the resolution of the bubo, to allay all pain or irritation which may exist in the sores themselves, and for this purpose the aqueous solution of opium before recommended will be found of great service.

176. When the commencement of bubo is accompanied by much pain, tenderness on pressure, or heat of parts, the local abstraction of blood may be necessary, although I have not a high opinion of this measure in the resolution of bubo generally. It may even be necessary to bleed from the arm if the patient be plethoric, and the local disease associated with general excitement, or much symptomatic fever. In local bleedings thus employed, it will be found advantageous to apply a small number of leeches, from four to eight, or more, and wait till the oozing of blood begins to cease, then to apply another relay of leeches so as to keep up a constant draining of blood from the part for twelve or more hours. This form of bleeding, termed "permanent," is found to reduce the inflammation more certainly and speedily than the application of a large number of leeches at once. Two, three, or more relays of leeches may be thus employed, proportionate to the strength of the patient and the intensity of the local disease.

177. The method originally proposed by M. Malapert, a French army-surgeon, is perhaps, however, of all others the best calculated to disperse the incipient bubo. This method consists in the application of blisters, and a solution of the bichloride of mercury.* The bubo is to be covered with a blister about the size of half-a-crown, larger or smaller, according to the size of the tumour; the following day when the epidermis is detached, a small portion of lint is to be moistened in a solution of the bichloride of mercury† and laid upon the denuded surface. This is to be kept in its place for two hours by bandages, or strips of adhesive plaster; when it is removed a dark brown eschar will be found already formed. The parts are now to be covered with a simple poultice, a cooling lotion, or a solution of opium, and the patient is to keep as quiet as possible till the eschar thus produced has separated; when this has taken place the tumour is found materially diminished, or altogether gone. If the tumour be of large size, or very indolent, a second or even third repetition of the process may become necessary.

178. Hundreds of cases of bubo have been, and are daily, thus treated successfully in the French army without the patients being confined to bed, or without their taking mercury internally, or using it by friction. M. Malapert's patients have taken during the time of

* Archives générales de Médecine. Mars, 1832. Du traitement des maladies vénériennes par l'application directe du deuto-chlorure de mercure en dissolution sur les tissus affectés primitivement ou consécutivement.

† R. Hydrargyri bichlorid. gr. xx.
Aquæ destillatæ, ℥ j.

treatment the decoction of sarsaparilla, but this is not considered at all essential to the success of the treatment. M. Malapert employed blisters with cauterization chiefly against the incipient bubo either indolent or inflamed; since that time a paper has been presented to the Academy by M. Reynaud, of Toulon, in which the same process has been directed with almost equal success against bubo in its second and third stages, even where the collection of pus has been considerable. The plan of MM. Malapert and Reynaud has now been universally adopted in the French Venereal Hospital by Cullerier and Ricord, with most marked success. The former of these authors says, we have tried this practice for three years in this hospital, under circumstances the most varied; it is a method really efficacious, and ought to hold a distinguished rank in the treatment of bubo: in the first stage of this affection, M. Cullerier states that he does not recollect having seen it fail.

179. This plan of treatment is most certain in its effects when employed in the first stage of bubo, when the inflammatory symptoms do not run high; it may be resorted to in all other forms of the affection, but not with so well-grounded a hope of its success. When the tumour has involved to much extent the cellular tissue of the groin, and the accompanying inflammation is great, it will be well, by local or general bleeding, rest, cooling lotions, and mild aperients, to mitigate at least the inflammation before the blister, &c. is resorted to. Indeed, in the employment of this method, we are not to lose sight of those other means of known efficacy which the established practice of surgery indicates. Frictions of mercurial ointment with

or without the iodide of potassium may be rubbed upon the base of the tumour at the same time, or the sore left by the separation of the eschar dressed with an ointment of this character.

180. Other caustics may be employed to form an eschar on the surface denuded by the blister, such as the sulphate of copper, in the proportion of two drachms to the ounce of water, the nitrate of silver, the chloride of zinc, or tincture of iodine. These, however, are not preferable to the bichloride of mercury.*

181. When a bubo has suppurated, this method may be still employed with success if the skin covering the abscess is thick; at this period it very commonly succeeds in dispersing the bubo without having recourse to the knife, &c. If the integuments are thin and the collection of pus on the point of discharging itself, it ought not to be used.

182. The objections to the use of this plan are the pain the application of the caustic occasions, which, however, is of short duration, and the cicatrix which the healing of the sore, after the eschar has separated, leaves behind. Both these evils, however, are trivial when compared with the inconvenience experienced from a bubo which has been allowed to suppurate.†

183. M. Ricord thinks that this method, however cer-

* Dr. Wallace resorts to a similar mode of practice in the treatment of indolent buboes; this consists in "the vesication of the surface of the tumour with the nitrate of silver, if there be not much increase of heat in the part."

† See the remarks by Cullerier, on the employment of this method, in Lucas Championnière, *Thérapeutique de la Syphilis*, p. 356 et suivantes; also by M. Ricord, pp. 582-4.

tain in its operation, should be used only in cases of bubo succeeding to chancre, and which may be presumed of a virulent character. He is of this opinion, because the buboes which succeed to excoriations upon the genitals not of a specific character, or to gonorrhœa, or which are d'emblée, have very little tendency to suppurate, and hence the inconvenience and pain of the process may be spared. In these cases M. Ricord prefers pressure with discutient plasters or lotions; compresses soaked in solutions of the acetate of lead, or muriate of ammonia,* or plasters of belladonna, lead, iodine, or mercury.† When much pain and tender-

* R. Plumbi acetat., ʒ ij.

Aquæ, ʒ xvj. M.—*Ricord*.

This is the “eau blanche” of the French Hospitals.

R. Ammon. muriat., ʒ ij.

Acidi acetic.

Sp. vini, āā ʒ ij.

Ext. belladonnæ, ʒ j.

Aquæ rosæ, ʒ xiv. M.

† For this purpose may be employed the “Emp. Ammoniac, c. Hydrargyro” of the London Pharmacopœia, the Emp. de Vigo of which I have already given the form, page 72;

or,

R. Emp. belladonnæ, pts. 8.

Plumbi ioduret., pt. 1. M.

R. Emp. “de Vigo” c. mercurio, pts. 4.

Extract. belladonnæ, pt. 1. M.—*Dupuytren*.

R. Emp. belladonnæ, ʒ iv.

Iodinii, ʒ j. M.

R. Emp. hydrargyri, ʒ iv.

Iodinii, ʒ j. M.

ness exist, bleeding becomes necessary, with the application of strong aqueous solutions of opium.

184. In the treatment of indolent bubo, in the commencement M. Ricord has recourse to the discutient plasters with compression in the day time, and friction with the iodide of potassium, or mercurial ointment, in the evening, covering the part during the night with a poultice. If this has not a marked effect upon the enlargement in a few days, blisters with the bichloride of mercury on Malapert's plan are employed. Frictions with ointments composed of the proto-ioduret of mercury,* or compresses soaked in a dilute tincture of iodine,† are also very useful in the resolution of the chronic or indolent bubo.

185. The disease may terminate in two ways: the enlarged glands may pass on slowly to suppuration, or assume a form of induration of a scirrhus or scrofulous character. In the latter form, friction with croton oil, the tincture of iodine, or the emp. belladonnæ with the tartar emetic, may be used as local applications. Small issues may also be formed over the induration by means of the caustic potash, or if the disease assume a purely scirrhus character, extirpation may become necessary. The progress, complication, and termination of bubo will depend very materially upon the constitution of the patient, and the condition of his general health; hence the latter demands the strictest attention on the part of the practitioner. The

* R. Hydrargyri proto-ioduret, $\mathfrak{D}$ j.
Adipis, $\mathfrak{z}$ j. M. ft. Unguent.

† R. Tinct. iodinii, $\mathfrak{z}$ j.
Aquæ distillat., $\mathfrak{z}$ ij. M. ft. Lotio.

organs of digestion, and the state of the viscera of the chest, and abdomen, should be carefully attended to; we must, to the utmost of our power, take care that no complication on the part of the latter organs interfere with the local disease, and endeavour by appropriate treatment to combat any general cachectic state that may be in existence, and which may not only prevent the resolution of the tumour in the groin, but favour the extension of disease to other parts of the glandular system. For these purposes an antiphlogistic treatment may be necessary on the one hand, whilst on the other the internal exhibition of mercury, iodine, or sarsaparilla may be useful, either simply or in any of the forms of combination which have been previously indicated.

186. When fluctuation is evident, more particularly if the skin covering the tumour be thin, it will generally be useless to lose time in attempting longer the resolution of the tumour. It will, as a general principle, be better to open it freely, and at once, either with the scalpel or the knife. Dr. Wallace believes that buboes in their stage of suppuration may be resolved by mercury if it has not been used earlier in the disease; and M. Reynaud has succeeded in dispersing them by the blister with caustics. These remedies are, however, to say the least, uncertain at this period, and we are more likely to save time, and our patient's constitution by resorting at once to a free opening.

187. The bubo may have suppurated freely, and the collection of matter be large, and the surrounding tissue little indurated, or there may be much surrounding induration, and the collection of matter small and deep seated. In all cases the best general rule of

practice is to open the bubo as soon as fluctuation is evident.* “When it is deemed prudent to open a bubo before the process of ulceration has ceased, or, in other words, where pus exists only in the centre of the tumour, and whilst this purulent matter is still surrounded by a morbid texture passing into the state of liquefaction, it will be indispensable to make our incision proportioned, both in its depth and extent, to the size of the tumour; for unless it be made deep, we may not reach the purulent focus;† and unless it be made extensive, or through such parts as are in progress to suppuration, we shall not stop this process; and before it is completed the opening we have made may close up from tumefaction, and the patient be thus exposed to the necessity of a fresh operation, or else to wait the discharge of the matter by the natural actions of the part. Whereas, if we make an incision sufficiently extensive, we shall not only avoid these evils, but also diminish very considerably the extent of the disease. In fact, incision into a bubo, when in the state of incipient suppuration, will in general as effectually put a stop to its progress as it will to that of anthrax when in an analogous state. I would even say further, that we may perhaps uniformly stop the increase of bubo by a sufficiently free incision in its first, second, or third stage—*i. e.* before matter is formed.”‡

188. When the integuments covering a bubo are of

* See the principles inculcated by Ricord, p. 595, and by Dr. Wallace, pp. 360-1.

† Ces bubons—veritables puits artesiens.—*Ricord.*

‡ Wallace, *op. cit.* p. 361.

a deep blue colour, more or less disorganized, or threatening gangrene, it is better to open the abscess with the potassa fusa, or some other caustic, than by simple incision. Where it is impossible to save the integuments, from their thinness and the degree of disorganization which they have undergone, Desruelles and Wallace prefer opening the abscess with caustic; the surface of the skin is to be destroyed by the potassa fusa, &c. to the proposed extent, and the next day a puncture made with the lancet in the centre of the slough thus formed. Where, however, it is probable that the integuments may be saved, the nitrate of silver is to be rubbed "on the surface of the bubo, and of the surrounding diseased skin, previously moistened with tepid water, until the cuticle is rendered of a bluish colour to the extent of an inch beyond the diseased integuments covering the tumour." On the following day a puncture is to be made in the thinnest part of the integuments, and a compress and roller are to be applied. When the surface of the cuticle has become dry after the first application of the caustic, it may be reapplied over the integuments as before. This local treatment recommended by Dr. Wallace almost universally succeeds in causing the sides of abscess to agglutinate and the external wound to heal.*

189. The open or ulcerated bubo may assume many morbid conditions which prevent its cicatrization. In the first place, the inflammation which sympathy, or the absorption of the venereal poison, has occasioned in the glands of the groin, and which has terminated in suppuration, may continue to be violent after the pus has

* Wallace, pp. 377-8.

been evacuated, and hence one obstacle to the cicatrization of the ulcer is a degree of inflammation in the part itself. This undue excitement results either from a continuance of the original inflammation, kept up by exercise of the diseased part, by too nourishing a diet or other causes, or from the imprudent and too early local application of stimulating dressings. In this form of the disease the patient will derive benefit from repose, low diet, gentle aperients, local bleeding, anodyne fomentations, and the application of compresses soaked in an aqueous solution of opium. The opiate or simple cerates are the most appropriate dressings; and these may be assisted by gentle pressure by means of compresses and a roller methodically applied.

190. Again, the surface of the open bubo is commonly covered with a thick slough, the ulcer itself is indolent, or disposed to spread, and its edges are red, angry, and elevated. This is the most ordinary condition of the true virulent bubo; and all that has been said on the ulcerating stage of chancres is applicable here. It becomes necessary, in these states, to destroy the diseased surface of the sore by means of caustics; and for this purpose the nitrate of silver, the mineral acids, the nitrated acid of mercury, or the powder of cantharides may be employed: the latter remedy is largely employed by Ricord. The dressings best suited to this form of bubo are Ricord's aromatic wine, with or without opium or tannin; this, as in the case of chancre, may be alternated with some digestive ointment,*

* The reader will find the particular forms for the preparation of these remedies, in the previous pages of this work, under the article Primary Venereal Sores.

solutions of the sulphate of copper or zinc, or a weak solution of the chlorides of lime or soda. Creosote is also very useful as a local application, more or less diluted.

191. In chronic open indolent bubo, with a foul surface, where most remedies have failed in modifying the condition of the sore, M. Cullerier employs occasionally, as a caustic, three, four, or five grains of the bichloride of mercury dusted over the surface of the sore, and suffered to remain for some hours. The application of the remedy is followed by severe pain, and inflammation, but generally succeeds in producing a healthy condition of the sore, speedily followed by complete cicatrization.*

192. The alternate application of leeches, and digestive ointments are exceeding efficacious in the treatment of ulcerated bubo. Desruelles states that he generally succeeds in healing these ulcers, in thirty or thirty-five days, by applying in their centre from four to six leeches every three or four days, and dressings in the intervals with compresses soaked in a solution of opium. The indications, however, of all local applications are to be sought for in the condition of the sore; they require constantly to be changed—what is useful to day may be injurious to-morrow.

193. A formidable obstacle to the cicatrization of an open bubo is occasionally presented by the edges of

* This practice originated with Dr. Ordinaire. He first employed it in the treatment of cancerous or foul sores of the rectum, nose, and other parts. The results of the method were so favorable, that Cullerier tried it at the Hôpital des Vénériennes in the treatment of foul indolent bubo. It has in many cases exceeded his most sanguine expectations.

the sore itself. The integuments covering the cavity have lost part of their vitality, they are more or less discoloured, indolent, or indurated, and offer no disposition to adhere to the under surface of the sore, or to throw up granulations by which the ulcer might be filled. In this condition they offer a permanent obstacle to cicatrization, and it becomes necessary to adopt means to bring about their union with the subjacent parts, or else to remove them altogether by the knife, scissors, or caustic. To accomplish the first intention, the under surface of the integuments may be rubbed with the sulphate of copper, the nitrate of silver, or some other caustic, the cavity of the ulcer filled with soft lint, covered with some dressing suited to the condition of the sore, and a bandage and compress applied.

194. When it becomes necessary to remove the floating portions of integument, caustics or the knife may be used, but this operation must not be performed on a truly venereal bubo in a state of ulceration, inflammation, or great irritability. These conditions must be subdued before such an operation is thought of. The late Dr. Wallace thought that the removal of the diseased integuments covering an open bubo might in most instances be prevented "by the vesication of the diseased integuments, and also of the sound skin for a little way beyond them by means of the nitrate of silver." The application of the caustic is to be renewed every four or five days, or as often as the surface of the integuments to which it might have been applied becomes covered by a new cuticle. It will also be useful to apply it occasionally to the whole ulcerating surface, and to the orifices of any fistulous openings that may exist, not with a view of destroying

exuberant granulations, but to excite the granulating surface to more healthy actions.*

195. Dr. Wallace states that he has known loose portions of integument of several inches in diameter, which were so diseased in their structure that they lay on the surface of the ulcer like a dead flap, saved by this process. "I have also," continues this author, "accomplished the cicatrization of other ulcerations, which presented numerous fistulous openings or detached flaps, and in which all the ordinary means, such as injections, compresses, incisions, &c. had all been employed in vain. In short I can most confidently recommend this treatment of indolent and atonic ulceration, &c. as well as that of abscesses of the same class, as a very great improvement in the general practice of surgery.

196. The internal surface of the open bubo is rarely smooth, uniform, or continuous; it is generally uneven and irregular, frequently divided into compartments, or presenting numerous orifices which are the openings to other glands, which have suppurated, and thus open by small orifices into the chief or general cavity, which is very commonly an abscess in the cellular tissue surrounding the gland or glands, which have been originally the seat of irritation. It is this pathologic condition of open bubo which renders its treatment so difficult and tedious.

197. Injections may be employed in the treatment of these fistulous openings with a view of modifying the condition of their surfaces, and disposing them to

* See Wallace, *op. cit.* p. 381.

cicatrizate. Solutions of the sulphate of copper, the nitrate of silver, the sulphate of zinc, or bichloride of mercury* may be thus employed.

198. If local bleedings, appropriate dressings, and compression fail in the treatment of these fistulæ or sinuses, it may be necessary to lay them open with the knife. Sometimes the enlargement of the orifice is sufficient, or it may be necessary to divide them in their whole length, or if the situation of the sinus permit, a counter-opening will generally answer all the purposes of complete incision, a practice attended with much terror and pain to the patient. Cullerier speaks highly of counter-openings made with the caustic potash; the caustic as well as the opening may contribute to the cure in these cases. The fistulæ may likewise be cauterized internally by means of solid nitrate of silver, or a small portion of the powdered oxymuriate of mercury introduced by means of a grooved director: this practice is painful, but generally successful in its results. Lastly, the whole external skin, corresponding to the sinuses, may be vesicated

* R. Cupri sulph., gr. vj.
Aquæ dest., ℥j. M.

R. Argent. nit., gr. vj.
Aquæ, ℥j. M.

R. Zinci sulph., gr. x.
Aquæ, ℥j. M.

R. Hyd. bichlorid., gr. j.
Aquæ, ℥j. M.—*Cullerier.*

with the nitrate of silver, in the manner recommended for the treatment of loose portions of integument.

199. The internal use of iodine, alone or combined with potass or mercury, is of great service in the treatment of many forms of chronic ulcerated bubo. To the consideration of the employment of this remedy I shall return when treating of the secondary and tertiary symptoms of syphilis, having been most kindly favoured by my friend, M. Ricord, of the "Hôpital des Vénériennes," with the results of his experience in the use of this remedy.

SECTION IX.

*Of Constitutional or Secondary Syphilis.**

200. I now pass to the consideration of constitutional or secondary syphilis, a class of morbid actions which make their appearance in the economy at a shorter or later period after a primary venereal sore upon the genitals or elsewhere; the secondary symptoms not being confined to the organs of generation, but extending to the skin, mucous membranes, or other parts.

* Syphilis constitutionnelle; accidents secondaires et tertiaires.
—Ricord. Maladies vénériennes consécutives.—Desruelles.

201. Ricord divides the phases of syphilis into the primary, the secondary, and the tertiary. The primitive symptom or chancre is due to the direct application of the venereal poison by means of sexual intercourse, or inoculation. It is capable of propagation with all its properties from one individual to another, by intercourse or inoculation. It is not capable of being transmitted hereditarily; a female having a chancre at the period of parturition may produce in this manner the same disease in her infant. The chancre may be followed by a series of symptoms which are successive or continuous, but not constitutional or secondary; these are new chancres, buboes, or abscesses, &c. of various kinds—these being in their onset purely local, and not dependent upon any affection of the constitution generally.

202. Secondary symptoms are those which make their appearance after the economy has become generally affected by the venereal poison, by absorption from the primary sore, during which process the matter has undergone modifications which, in some measure, change its character. Secondary syphilitic diseases generally appear on the skin, or mucous membranes in the eyes, or the testicles, &c. Constitutional syphilis rarely makes its appearance before the second week after the primitive affection, more commonly later, towards the fourth or fifth weeks, or at periods still more remote. These symptoms are not capable of producing their like by inoculation, and thus cannot be mistaken for primary affections. They may be transmitted hereditarily from parent to child.

203. When syphilis has continued in the economy for an indefinite period of time, we observe the symp-

toms which are termed secondary to disappear, or to lose the properties which at first characterized them, whilst others of a different kind succeed, to which Ricord has applied the term of "*tertiary*." The tertiary symptoms appear at an indefinite, and generally very long period, after the primary diseases, and in the greater number of subjects either after secondary symptoms have disappeared, or whilst these are still manifest in the constitution. The diseases which Ricord terms tertiary are deep-seated diseases of the skin, as lupus, and affections of the bones, as periostosis, exostosis, caries, necrosis. To these may be added various internal affections, as yet neither well known, or described. M. Ricord has presented to the Royal Academy of Medicine specimens of tubercles of the brain, which he believes to be of syphilitic origin. The tertiary symptoms are not hereditary, under any specific form of venereal affection. M. Ricord, however, thinks that the offspring of persons thus affected are very commonly scrofulous, phthisical, or predisposed to cancerous diseases. Tertiary symptoms are not capable of propagation by inoculation.

204. All the forms of constitutional syphilis must be preceded by a primary affection, unless the disease be the result of hereditary taint, which then makes its appearance with those symptoms which are generally termed secondary.

205. It may be naturally enquired here, whether any treatment of the primary disease can certainly prevent the secondary. This question has also been agitated by Ricord. This author states, that he has not been able to meet with any recorded fact where a primary venereal sore healed in five days, has been followed by

secondary symptoms ; neither has he ever observed such a circumstance in his own practice. The probability of secondary symptoms is in direct proportion to the duration of the primitive disease, the longer this continues the greater is the chance that the constitution may become affected, hence that treatment is the best prophylactic under which the sore most rapidly heals, without induration of its cicatrix.

206. All persons are not equally susceptible of a constitutional infection from a primary sore, hence we commonly observe those to escape, in whom the sore has healed spontaneously without treatment, or where the treatment has been conducted on general principles only. The risk of secondary symptoms is materially diminished, where the primary sore has been treated by mercury. This fact is admitted by all authors practically conversant with the subject. Those individuals are most likely to suffer from constitutional syphilis whose general health is bad when they contract a primary sore ; hence chronic affections of the skin, stomach, or digestive organs, scrofula, general cachexy, or other diseases general or particular, under which the patient may labour at the time of infection, are to be considered as predisposing causes. Attention to the general health is of the first importance, and the constitution of our patient must most materially modify our treatment.

207. Secondary syphilis, like primary, only becomes formidable by neglect, and ill-treatment ; it is a principle we should never lose sight of, to commence seriously the treatment of constitutional syphilis the moment it becomes manifest in the economy. There is no contra-indication to the immediate commencement

of this treatment; should the constitution be bad, or the patient diseased, it must be modified to suit these circumstances: even the period of gestation is no bar to the anti-syphilitic treatment. M. Ricord states that he has seen more females miscarry when their disease has been suffered to go on unchecked, than when they have been subjected to an anti-syphilitic treatment, framed with judgment, to suit the circumstances of the case. The same remarks apply to the period of suckling.

208. When constitutional syphilis is complicated, these complications should never be neglected; if they co-exist with acute or subacute affections of internal organs, the latter ought first to be attended to, these should be subdued before we commence the anti-syphilitic treatment. When the chronic affections, as scrofula, affections of the skin, or chronic diseases of internal organs, complicate constitutional syphilis, the anti-syphilitic treatment may be at once commenced, but it must be framed and conducted with much care, that the accompanying affection, of whatever character it may be, may not be aggravated by it. An exclusive or empirical treatment cannot be too strongly condemned. It is in these cases that the compounds of iodine and mercury, iodine and iron, and iodine and potass are commonly so useful.*

209. Whenever any of the forms of constitutional

* See the whole of the excellent remarks of M. Ricord on Complicated Constitutional Syphilis, op. cit. pp. 615-18.

“ En un mot, l'accident le plus saillant, l'épiphénomène, quel qu'il soit, est celui qu'il faut d'abord combattre, sans négliger aucun des élémens qui peuvent fournir aux indications thérapeutiques.”

syphilis are accompanied by fever, or much inflammation, a strict antiphlogistic treatment and regimen are absolutely necessary. Without a rigorous observance of this rule (observes M. Ricord), we can have no rational hope of success. Whatever be the character of the constitutional symptoms, if they are accompanied by local inflammation, or general excitement, a rigorous antiphlogistic regimen and treatment ought to be followed till the vascular excitement is subdued. An antiphlogistic treatment is not to be adopted where these phenomena are absent, and of course its employment as a general measure is to be severely condemned, for in many cachectic or scrofulous patients, or those whose constitutions, are already undermined by chronic disease, an opposite plan of treatment becomes necessary. In the latter instances a full, nutritious diet is essential to the success of the treatment. The practice of the Venereal Hospital has taught M. Ricord that debilitated and scrofulous patients, who have been badly fed, quickly recover their general health and are cured of syphilis under the full diet of the hospital, whilst those whose circumstances have enabled them to live well, frequently become cachectic under the hospital regulations, their syphilitic affections remain stationary, and they only recover their health, and lose their disease in returning to the habits of living to which they have been accustomed.

210. That the internal treatment adopted against any particular form of constitutional syphilis may have every chance of success, it is also necessary that the stomach and bowels be kept entirely free from all irritation or disease.

SECTION X.

*Of Syphilitic Diseases of the Skin.**

211. Syphilitic diseases of the skin may be referred to eight principal groups; 1st, the Exanthemata; 2d, Squamæ; 3d, Vesiculæ; 4th, Pustule; 5th, Papulæ; 6th, Tubercula; 7th, Ulcers; and 8th, Vegetations. In considering these several varieties, I shall notice some remedies applicable to the treatment of the Syphilides generally, and then notice more particularly the treatment suited to each particular form.

212. *Of Mercury.* All that has been said in the early part of this work on the principles which are to guide us, both in the internal administration and local application of mercury in syphilitic diseases finds its reapplication here. It is useless to recapitulate what has been there laid down.

213. The external employ of mercury is occasionally resorted to by Biett, in the treatment of certain forms of constitutional syphilis. It may be employed in baths, in fumigations, or in the shape of ointment. The baths are hardly employed. Weak solutions of the bichloride of mercury have been occasionally used at St. Louis, in the papulous, tuberculous, or vegetating forms of Syphilis; they have, however, sometimes given

* To this class of diseases the term "Syphilides," (Syphilis, and eidos,) was first applied by Alibert; it has since been adopted by Biett, Rayer, Ricord, and all modern writers upon Syphilitic Eruptions.

rise to serious accidents, and hence are almost abandoned. Fumigations or some other form of local application may be substituted for them. Ointments of the proto- and deuto-iodurets of mercury* are used by Bielt by way of friction, on parts of the skin affected with chronic indolent tubercles (syphilitic lupus.)†

214. At the Hospital St. Louis, the preparation of mercury, preferred in the internal treatment of the syphilides, is the bichloride. Small doses of æther are added to the form of administration in common use, this adds much to the efficacy of the remedy; diseases which have resisted the exhibition of the common solution, give way speedily to this combination.‡ To pro-

* R. Adipis, $\mathfrak{z}$ j.
Hyd. proto-ioduret., gr. xxv. M.

R. Adipis, $\mathfrak{z}$ j.
Hyd. dento-ioduret., gr. xvj. M.

† These tubercles are grouped amongst the tertiary symptoms by M. Ricord. We shall presently have to speak of the particular treatment of this surgeon in such forms of disease.

‡ SYRUP OF LARREY.

R. Syrup. sudorific., ℞ ij. §
Hydrarg. bichlorid., gr. xx.
Æther. sulphuric., $\mathfrak{z}$ ij.
Ext. opii, gr. xx.
Ammoniæ muriatis, gr. xx. M.

From one to two ounces of this syrup are administered in the course of the day, in divided doses, in a tea-cupful or more of the decoction of sarsaparilla, or some other sudorific.

§ The syrup of sarsaparilla may be used for the sudorific syrup; the only difference in the original prescription is the addition to the sarsaparilla of an equal quantity of guaiacum.

cure ease to patients suffering from pains in the bones the bichloride of mercury with opium, in the proportion of an eighth of a grain of the former, with a grain of the latter, is used by Biett. Dupuytren had recourse to the extract of aconite for the same purpose. The cyanuret of mercury is likewise extremely useful in the internal treatment of the syphilides ; symptoms commonly disappear under its use, which have resisted the other forms of mercury, indeed a change of form in the remedy we are using is frequently of great benefit. The cyanuret may be given in solution, containing twenty-four grains of the salt to two pounds of distilled water ; of this solution, from one to two ounces a day are administered in any vehicle. The proto-ioduret of mercury in doses of a grain a day, in the commencement, is the remedy preferred by Ricord. In constitutional syphilis, mercurial remedies are almost always more efficacious when given by the mouth, than when employed endermically by way of friction. If one form of the remedy disagrees, or does not soon produce marked effects, it will be advisable to have recourse to another, or even a third, till we have found one suited to the constitution of the patient, and the individual peculiarities of his disease.

215. *Iodine and its preparations.* These remedies are employed largely in the treatment of the secondary and tertiary symptoms of constitutional syphilis. Iodine of itself is a powerful antisyphilitic, but, unless in a state of combination with mercury, is inadmissible in the treatment of the simple primary forms of disease. It may be employed in the cutaneous diseases of constitutional syphilis with great advantage, and, though a

remedy not so active as mercury, is particularly indicated in constitutional syphilis, where the primary forms of disease have been treated by full courses of the former medicine. Cullerier uses the following form for its administration.

R. Iodinii, gr. j.
Potassæ Iodid., gr. ij. ad iv.
Aquæ, ℥j. M.

This may be put into a pint or quart of any vehicle; as the decoction of sarsaparilla, &c. and given at intervals during the day. The dose of the iodine may be increased to two grains in the day, and that of the iodide of potass to six, or ten. The preparations of iodine are chiefly of use in constitutional syphilis, in scrofulous or delicate patients, and in glandular enlargements of syphilitic character, which have resisted the action of mercurials.

216. M. Ricord employs the iodide of potassium chiefly in those forms of constitutional syphilis which he has termed tertiary. These are tubercles of the skin and mucous membranes, which, in the venereal pathology of this surgeon, form the link connecting the secondary with the tertiary forms of disease, nocturnal pains, periostitis, ostitis, caries, and tumours of the bones: in all these forms of disease, the iodide of potassium is considered by Ricord as the remedy "par excellence." He does not rely upon it so much in the secondary affections of the skin, unless used in combination with the iodurets of mercury. The dose of the iodide of potassium, in the commencement, should be

ten grains in the day, dissolved in an ounce of distilled water, and administered at intervals in any convenient vehicle; every two or three days the dose may be increased, observing its effects: Ricord increases it ten grains every three days; he has carried it as far as one hundred and forty grains in the day without any ill effect. The iodide of potassium accelerates the pulse, and occasions a slight heat in the stomach; generally, however, if the stomach be free from disease or irritation, it materially improves the digestive powers. If given in an overdose, the heat in the stomach amounts to pain, and may be followed by inflammation; it occasions also when thus employed, pricking or irritation of the skin, followed by a pustular eruption; sometimes the head is affected, and the quantity of urine enormously increased. Ricord mentions a case in which this took place to the extent of forty or fifty pints in the day, it was not found, on analysis, to contain sugar. We shall return to the special indication for the employment of this remedy when speaking of the particular forms of constitutional syphilis.

217. *Sudorifics.* These remedies are commonly employed with success in the treatment of constitutional syphilis. In addition to the compound decoction of sarsaparilla, &c. commonly used in this country, either alone, or as a vehicle for the exhibition of other remedies, several forms of these medicines are employed at the Hospital St. Louis, and in the Venereal Hospital, which may be adopted with advantage. The decoction of Zittman is the preparation most universally used, and that with great success. It is thus prepared,—

R. Rad. sarsaparillæ, ℥ xij.

Aquæ, ℔ xxiv.

Boil for two hours, and add

Aluminis sulph. ℥ jss.

Hydrarg. chlorid., ℥ ss.

Antimonii sulphuret., ʒj.

Boil down to two thirds, and add

Fol. sennæ, ℥ iij.

Rad. glycyrrhizæ, ℥ jss.

Sem. anisi, ℥ ss.

Infuse for an hour, and strain.

This is termed the stronger decoction. The weaker one is to be prepared by taking the residue which remains after straining the stronger, and adding

Rad. sarsaparillæ, ℥ ij.

Aquæ fontanæ, ℔. xxiv.

Boil for two hours, and add

Corticis canellæ,	} āā 3 iij.
Corticis limonum,	
Semin. cardamomi,	

Infuse for an hour, and strain.

The patient is directed to take half a pint of the stronger decoction the first thing in the morning, warm, and to remain in bed some time after taking it. During the day, he should take at intervals a pint of the weaker decoction, and in the evening a second half pint of the stronger. The last two doses are to be taken cold. Every fifth day the decoctions are to be omitted, and an aperient taken. This preparation is chiefly used in venereal affections of the bones, but is

not less useful in the syphilides generally ; it is employed largely in the practice by Biett and Ricord.

218. The sudorific syrup* may be employed as a vehicle for other remedies. M. Ricord makes use of it for the administration of cyanuret of mercury.† The sulphuret of antimony, or the subcarbonate of ammonia, are also valuable additions to the simple sudorific decoctions. The arseniate of soda administered in a sudorific decoction, or in pills, is a remedy of great utility in obstinate syphilitic diseases of the skin ; M. Alibert mentions the tuberculous varieties, or ulcerations where its exhibition is most likely to be successful. The dose is from one sixteenth to one eighth of a grain. Biett uses it largely with great success.

219. The vapour or warm bath should be regularly employed during the administration of that class of remedies of which we have just been speaking.

220. *The muriate of gold.* This remedy is particularly useful in the vegetating forms of the syphilides.

* *Sudorific syrup.*

Rx. Rad. sarsæ.

Guaiaci ligni rasi, āā ʒ vj.

Aquæ, lb. iv.

Macerate for twenty-four hours ; boil to one half over a slow fire ; strain ; and add from one to two pounds of white sugar.

† Rx. Syrup. sudorific., Oj.

Hydrarg. cyanuret., gr. iv.

Ext. opii, gr. viii. M.

A tablespoonful night and morning, increasing the dose gradually.

It is prescribed in the form of ointment; from six to sixteen grains of the salt to an ounce of lard. Biett prefers it to every other remedy, as a local application to syphilitic vegetations. Internally it may be exhibited under the same forms, and in the same doses as the bichloride of mercury, its internal use is however uncertain.

SECTION XI.

Of the particular Forms of Syphilitic Diseases of the Skin.

OF THE SYPHILITIC EXANTHEMATA.

221. THE exanthematic form of the syphilides generally makes its appearance under the form of irregular patches of a shining coppery, or bronze colour, on the onset of the disease; if there be much accompanying fever they are more inclined to redness, and the bronze or copper colour is not marked till the inflammation and fever have disappeared. These patches, rarely confluent, and of about an inch in diameter, are scattered more or less over the whole surface of the body; they more commonly, however, appear on the face, the neck, the forehead, the mammæ, or the genitals. They are sometimes accompanied by papulæ, and other forms of constitutional syphilis, more particularly "iritis," and are frequently suc-

ceeded by the squamous or tuberculous forms of disease. These eruptions frequently accompany the primary forms of syphilis.

222. They demand, in the first instance, if there be much symptomatic fever, an antiphlogistic treatment, and the warm bath; afterwards, if they are rebellious, the cyanuret or bichloride of mercury with sudorifics may be employed. The syrup of Larrey is used by Biett as one of the most efficacious remedies in this form of the syphilides, alone, or given in some decoction of the woods. Ricord's favorite decoction of Feltz may be here employed.*

OF THE SYPHILITIC SQUAMÆ.

223. The squamæ are particles of thickened epidermis, become hard, dull, and opaque, and elevated above the surrounding skin by a morbid condition of the subjacent dermis, or simply, of the rete mucosum. This disease is essentially chronic, and does not generally succeed to any febrile condition of the economy. The syphilitic squamæ generally appear in the form of

* THE DECOCTION OF FELTZ.

R. Rad. sarsaparillæ, ℥ iij.
 Gummi acaciæ, ℥ss ad ʒ ij.
 Antimonii sulphuret., ℥ iv.

The sarsaparilla is to be boiled in six pints of water, over a slow fire, till it is reduced to one half. The sulphuret of antimony is to be wrapped in a piece of linen, and suspended in the middle of the decoction, without touching the sides of the vessel. M. Ricord prefers this to the other decoctions of the woods.

patches more or less diffused, varying from the size of a sixpence to that of a half-crown; the centre of these patches is frequently depressed, they are of a red copper colour, changing ultimately to a dull brown, or even black, which is a long time in disappearing.

224. The syphilitic squamæ have a tendency to excoriate, or ulcerate slightly in the centre, which then becomes covered by a small, dry, thick crust; occasionally, also, their surface is traversed by fissures, when there does not exist any apparent ulceration. After the cure of the disease, the dermis remains depressed in the parts corresponding to the centre of the squamous patches. The other symptoms of constitutional syphilis, with which the squamæ are commonly associated, are inflammations and ulcerations of the fauces and palate, iritis, pains and diseases of the periosteum and bones.

225. As the syphilitic squamæ are not generally accompanied by vascular excitement or fever, an antiphlogistic treatment is rarely indicated. Sudorifics, as the decoction of sarsaparilla, or the preparations of Zittman or Feltz, with the carbonate of ammonia, and the vapour bath are generally successful. Mercurial fumigations, the cyanuret of mercury, or the syrup of Larrey, are the best remedies when mercurials are indicated. The preparations of arsenic are useful in these forms of disease, particularly when they succeed to primary diseases which have been fully treated by mercury. Biett relates a case of this character speedily cured by the liquor arsenicalis, and the arseniate of soda, after the failure of other measures. The iodide of potassium may likewise be used, but to this remedy we shall return in a subsequent section.

OF THE SYPHILITIC VESICULÆ.

226. The vesiculæ are the most rare of all the syphilides. M. Biett himself has only seen a few examples of it. In one case, well observed, the disease was characterized by vesicles seated upon an inflamed base, of a deep copper-coloured red; they were indolent, and remained stationary much longer than eruptions of the same character, not having a venereal origin. Some of them shrunk up, and were transformed into grey squamous crusts; others disappeared, but left behind them on the skin where they were situated, a brown mark. They were accompanied by some degree of fever, inflammation of the fauces, and palate, and an ulcer of suspicious character. Ultimately, the patient became covered with a well marked pustular syphilitic eruption.

227. The treatment best adapted to these forms of disease, is an antiphlogistic one;—the warm bath, and sudorifics. A mercurial course will rarely be required.

OF THE SYPHILITIC PUSTULÆ.

228. The pustulæ are characterized by an elevation of the epidermis, raised by a collection of pus secreted by a circumscribed portion of inflamed skin. The syphilitic pustulæ are frequently complicated with tubercles, and the pustules themselves commonly placed upon a tuberculous base. The pustules are again occasionally associated with papulæ, but are rarely

complicated either with squamous, or exanthematous affections. The syphilitic pustulæ frequently ulcerate, and give place to a sore of characteristic appearance, with hard and elevated edges, and a foul surface, secreting a sanious pus. Unlike other pustular diseases of the skin, the syphilitic pustule follows no regular course; they are developed slowly, and remain stationary for a longer or shorter period, frequently for many weeks, or till an appropriate treatment be adopted. They are situated upon a hard raised base, of a deep brown or coppery red; this colour is better marked when they have continued some time than in the commencement of disease. The syphilitic pustulæ strictly belong to that class of affections, which are termed secondary, but are sometimes observed to co-exist with a primary venereal sore; they are, under these circumstances, developed upon the skin of the penis, the scrotum, the pubes, or the labia; they are placed upon a red indurated base, soon burst, and change into ulcerations, having all the character of chancres.

229. The syphilitic pustulæ form two distinct groups. The first is composed of pustules termed *psydraciæ*, by Willan; and by Alibert, miliary syphilitic pustules. They are small, numerous, arranged in groups, and disposed to become confluent; each pustule is placed upon a hard base, of deep red, or copper colour, and resembles an opake white point, which, when opened, presents a small grey-coloured excavation. These excavations ulcerate slowly, or cicatrize, leaving a depressed cicatrix on the skin, of a coppery, or brown colour, or become covered with a thin incrustation.

230. To the pustules composing the second group

the term phlyzaciæ is applied. Willan has grouped them under the generic appellation of syphilitic ecthyma. The phlyzaceous pustules, or the pustules of syphilitic ecthyma are formed separately and distinctly upon the skin; not in groups as in the former variety; they are placed upon a hard, thickened, conical base, surrounded by a deep red, brown, or copper-coloured areola. They commonly ulcerate, and are succeeded by sores, with thick, elevated edges, dug out as it were from the surrounding parts; these ulcers secrete an offensive pus, or become covered with thick crusts; they have a tendency to spread, or to remain stationary, and not to cicatrize or assume any healing process, unless an appropriate treatment be resorted to. Sometimes these ulcerations give origin to red, fungous, painful vegetations. The crusts with which they are occasionally covered, are hard, brown, or black, and not of a yellow, as those which cover the surfaces of broken pustules generally.

231. The rupture of the syphilitic pustule, and the incrustation of the pus upon the sore thus produced, give rise to a peculiar form of disease, which Alibert has described as the "crustaceous pustular syphilide;" but this, it will be perceived, is not a distinct or separate form of disease, but merely the consequence of the breaking of the pustule, and the drying up of the pus upon the sore, or ulcer, which is thus formed. The affection is now characterized by a very thick, and very hard crust, most frequently of a conical shape, covering an excavated ulcer, possessing all the characters both on its base and edges of a venereal sore. These ulcers sometimes penetrate very deeply, destroying the periosteum, and ultimately producing

disease in the bones, over which they are situated. They now enter into the class of the tertiary symptoms of M. Ricord. Should the ulcer heal under the pustule, it leaves behind it a cicatrix of a copper-colour, deeply depressed in the skin.

232. The syphilitic pustulæ are amongst the most formidable of the forms of constitutional syphilis, the crusts and ulceration which succeed to the pustules frequently being so extensive as to cover the entire face, or the greater portion of the body. The constitutional disturbance is, in these instances, so great, as frequently to terminate fatally. The records of St. Louis furnish numerous examples of this kind.

233. The treatment of the pustular forms of constitutional syphilis must be varied to suit the period of the disease, and the particular condition of the eruption, and the state of the constitution which accompanies it. In the former, accompanied by much inflammation or irritation, an antiphlogistic treatment is at first to be adopted;—low diet, the warm bath, either alone, or medicated with gelatin, or anodynes, as the decoctions of poppy, marsh-mallows, henbane, or opiates. The vapour bath is also useful, and mercurial fumigations, when the affection is perfectly chronic. At this period, also, mercurials may be given internally; the preparations most useful, are the protoioduret, the cyanuret, and the syrup of Baron Larrey.

234. When the patient's health is more or less undermined by the pain and irritation of an extensive pustular eruption, all specific treatment must be abandoned till the general health is improved; he must be put upon the use of mild tonics, and a generous diet, and the pain of the eruption must be

allayed by opiates given internally, or applied locally. Opiates are of great use in all diseases of this kind, particularly, where the general health is impaired, and much irritation present. Many patients in the wards of St. Louis have recovered from diseases of this character by their use alone. Dupuytren had recourse to the aconite; but opiates are preferable, and more certain.

235. When mercurials fail, as they occasionally will, the iodide of potassium, or the preparations of arsenic may be employed. If the pustules are large, painful, and ulcerated, they should be dressed with aqueous solutions of opium, the opiate cerate, or a lotion of hydrocyanic acid, in the proportions of ten, twelve, or fifteen drops to the ounce of water. When the ulcers are perfectly chronic and indolent, the ointment of the proto-ioduret of mercury is used.

236. The various local remedies mentioned in the section of primary sores may be used to these ulcerations according to the aspect they assume. They may be washed with weak solutions of chloride of lime, and then dusted with calomel, or with calomel and opium.

OF THE SYPHILITIC PAPULÆ.

237. The papulæ are small, solid, hard elevations upon the skin, containing neither lymph nor pus, surrounded by a small inflamed areola, having frequently ulcerations at their apices, which then become covered with small, dry incrustations. The syphilitic papulæ

are more or less disseminated over the body, arranged in groups, or disposed to be confluent. They are distinguished by their deep red, or copper-colour, their tendency to ulcerate, and to form hard incrustations on their surfaces, which, falling off when the ulcer has healed, leave brown, copper-coloured, depressed cicatrices in the skin. The papulæ are commonly associated with pustules, tubercles, or squamæ; and almost always accompany syphilitic iritis, ulcers of the mouth and fauces, diseases of the bones, or periosteum, nocturnal pains, and other symptoms of confirmed constitutional syphilis. This affection of the skin sometimes accompanies primary symptoms; when it does so, it assumes a more or less acute form, and is attended with some fever.

238. This variety of disease has been termed venereal itch, "*scabies venerea*," on account of the irritation the papulæ occasion: when they are seated on certain parts of the body, as on the arms, the prepuce, or the vulva, &c. it has been described by Lagneau,* as "*syphilitic prurigo of the pudendum*." It then attacks the labia, principally on their external surface, the orifice of the vagina, and the clitoris, which parts, on examination, are found covered with small papulæ of a deep red colour, causing an intolerable itching, principally in the night; the eruption sometimes extends to the arms, and internal parts of the thighs. Mercurial ointment generally allays the irritation.

239. The practitioner must be careful in his diag-

* *Exposé des symptômes de la maladie vénérienne*, &c. &c. Paris, 1812.

nosis of this disease, to distinguish it from the common prurigo, which so frequently distresses pregnant females, which is symptomatic of some uterine affection, or consequent upon suppression of the menstrual discharge.

240. If the papulæ assume an acute, or sub-acute form, they must be treated, at first, on the antiphlogistic plan, and a regulated diet must be observed. Should they succeed to primary symptoms, which have not been treated by mercury, this remedy may be employed: fumigations have a marked effect in allaying the irritation by which they are accompanied; weak solutions of the bichloride of mercury may likewise be used, to sponge the surface of the skin affected with syphilitic papulæ.

SECTION XII.

Of the Syphilitic Tubercula.

241. TUBERCLES of the skin are deep seated, solid, circumscribed elevations, containing neither lymph nor pus, they differ from the papulæ in their size, being much larger, more prominent, and better defined. Syphilitic tubercles are either isolated or grouped, of a shining red, livid, or brown colour, surrounded by an areola of a dark red or coppery appearance. These tubercles are prone to become ulcerated, and form excavated sores with thick and elevated edges, and a foul surface, secreting an offensive pus,

which, drying up, is transformed into grey or dark coloured scabs or crusts. The syphilitic tubercle forms the link of connexion between the secondary and tertiary symptoms of M. Ricord; it is the first of that class of syphilitic diseases, in which the virus appears to have penetrated more deeply into the economy, and to have produced a disorganization in tissues, which those forms hitherto considered have left untouched.

242. The flat tubercle of M. Cullerier, or the tuberculous pustule of Alibert, sometimes occurs as a primitive affection, but more commonly as a symptom of constitutional syphilis; in the former instance it is observed in the scrotum, the labia, the vicinity of the arms, or the mammæ. The surface of these tubercles is smooth and flat, of a deep red or copper colour, varying from the size of a sixpence to that of a shilling; they are not so much disposed to ulcerate as the other varieties.

243. The more common forms of tubercle are conical, or round elevations, dispersed here and there over the skin, or assembled in groups or clusters, which are also irregularly distributed. The size of these varies from that of a pea to that of a large hazel nut, or filbert; they are more commonly situated on the anterior surface of the chest, or the abdomen, on the neck, or the internal part of the arms.!

244. Another variety of tubercle is situated, more commonly, on the alæ and lobule of the nose, or on the forehead; frequently, also, upon the neck of the uterus, or upon the tongue, where they may be mistaken for cancerous affections. These tubercles are commonly assembled in circular groups of variable

size; they are so prone to ulcerate, that this termination appears to be one of their natural characters; when in this condition, they are frequently described under the name of syphilitic lupus. The tubercular syphilides are commonly complicated with a scrofulous, scorbutic, or herpetic tendency, or diathesis; their progress is slow, and generally without pain; they gradually increase in size till they terminate in softening or ulceration. They are the most formidable of all the forms of constitutional syphilis, producing great deformity in all the parts invaded by ulceration, and exceedingly difficult to cure.

245. Whilst the tubercles are in a state of induration, and as yet neither ulcerated or softened, their resolution may be attempted. For this purpose, M. Ricord employs the ioduret of mercury, with the iodide of potassium; it must be remembered, however, before any plan of treatment is framed, that due attention be paid to the general health of the patient.

246. If there be no contra-indication, the treatment is commenced by administering a pill of the proto-ioduret of mercury daily, containing one grain of the salt combined with conium, or opium,* and the solution of the iodide of potassium,† at first administered in doses of ten grains in the day. On the fifth day,

* R. Hyd. proto-ioduret., gr. j.

Ext. conii, gr. v., vel

Pulv. opii, gr. ss. M. ft. pil. o. n. sumend.

† See the Section on the use of iodine and its preparations, in constitutional syphilis.

two pills are given, and the quantity of the iodide of potassium is increased; it is generally unnecessary to carry the dose of mercury to any extent, or to continue its use very long; the treatment is to be completed by the ioduret of potassium. The indurated tubercle is commonly resolved by this treatment, leaving behind it, in the skin, merely a depression of a brown or copper colour more or less deep.

247. The mercurial fumigations, alternated with baths, are also exceedingly useful, whilst the tubercles are yet unsoftened, in procuring their resolution; they may be employed with the iodide of potassium, and sarsaparilla.

248. As the syphilitic tubercles are accompanied by a process of inflammation, under the increase of which they soften and ulcerate, a local treatment, whilst they are in a state of induration, is of vast service in assisting the internal treatment in their resolution. For this purpose, cooling lotions may be employed, or fomentations of poppy, or henbane, aqueous solutions of opium, poultices, and leeches applied at a little distance from the base of the tubercle.

249. When the inflammation is subdued, and the tubercles are indolent, folds of linen soaked in a weak solution of the oxymuriate,* or frictions with mercurial honey,† or the ointment of the proto-ioduret

* R. Decocti altheæ officinalis, o j,
Hydrargyri bichlorid., gr. xvij. M.—*Biett.*

† *Mercurial honey.*

R. Hydrargyri chlorid., 3 j.
Mellis opt., 3 j. M.

should be used. They may also be sponged with a lotion composed of the solution of chloride of lime, and afterwards rubbed with an ointment made of calomel, or calomel and opium. Ricord gives one golden rule here, which, in attempting to resolve the tubercular syphilide, we should bear constantly in mind: that, as long as inflammation exists, a local antiphlogistic treatment should be pursued, whatever, according to the constitution of the patient, the internal treatment may be. The local applications above indicated are only to be employed in a perfectly indolent condition of the disease.

250. In the ulcerated forms of tubercles, all that has been said on the treatment of primary venereal sores may be referred to with advantage, since these secondary ulcerations require nearly the same local treatment,—the use of the nitrate of silver, the aromatic wine, with astringents, sedatives, narcotics, or digestive ointments, or a local antiphlogistic treatment according to the aspect of the sore. When caustics are indicated, the surface of the ulcers may be touched with a solution of the deuto-nitrate of mercury in nitric acid:* this is the favorite remedy at St. Louis, and the ulcers cicatrize rapidly under its application; the separation of the crusts or eschars may be facilitated by the warm or vapour bath.

251. The iodide of potassium is the favorite remedy with M. Ricord during the ulcerating stages of tubercle;

* R. Hydrarg. deuto-nitratis, 3 ss. ad 3j.
Acid. nitric., 3j. M.

mercurials also may be used, particularly if the primary disease have not been treated by mercury ; the proto-ioduret, the cyanuret, or the syrup of Larrey are the best remedies. The decoctions of Feltz or Zittman, the liquor arisenicalis or the arseniate of soda are also remedies which, in particular cases, may be employed with advantage. If the disease do not appear to amend under the use of one remedy, another should be resorted to, and in this manner it will sometimes be found necessary to try several before one is discovered suited to the constitution of the patient. Sometimes the preparations of arsenic succeed when all the rest have failed, occasionally one form of mercurial when another has been unsuccessful. There are cases, happily rare ones, in which all medicines appear useless : it is better, under these circumstances, to omit them altogether for a time, to remove the patient to a fresh atmosphere, to watch his general health carefully, and then again to resume the treatment, after the lapse of a longer or shorter period.

SECTION XIII.

Of Constitutional Syphilitic Ulcerations.

252. THE secondary forms of syphilitic ulceration are comparatively rare, unless we take into the account those forms which succeed to the pustular or tubercular varieties of the disease; indeed, chancres or primitive ulcers themselves are most commonly if not always preceded by a pustule, or vesicle. These ulcers are, however, sometimes met with, being only preceded by a slight itching or redness of the skin, succeeded immediately by ulceration. They have generally a specific character, are excavated with thickened and defined edges, and a foul surface, secreting an offensive pus. Their situation is generally about the nose, the edges of the mouth, the eyelids, the ears, or the mastoidean region; they are also common upon the mammæ, near the umbilicus, in the axillæ, the groins, or round the edges of the nails. The constitutional syphilitic ulcer often makes its appearance in form of fissures, depending upon the disposition of the skin in the parts where the ulceration then takes place; these varieties are seen upon the skin of the scrotum, in the vicinity of the anus, the umbilicus, or the commissures of the fingers and toes, the folds of the skin of the eyelids, the lips, the palms of the hands, or soles of the feet.

253. The local treatment of these ulcers is to be conducted on the same principles which direct us in the management of the primitive venereal sore, or the

ulcer succeeding to the pustule or tubercle. Local treatment however, though essential, is seldom sufficient; it will be most frequently necessary to administer internally sudorifics, or the preparations of mercury, or arsenic, as recommended in the syphilides generally.

OF VEGETATIONS.

254. Vegetations, or excrescences, of varied form and appearance, upon the skin or edges of the mucous membranes, constitute the last variety of the syphilides or venereal diseases of the skin. Desruelles divides these into three heads, according to their anatomical structure: first, the vegetations formed by the epidermis, and of a horny or perfectly inorganic character; second, those termed cellulo-vascular, growing from the surface of the mucous membranes, and composed chiefly of blood-vessels; and, third, those springing from the skin itself, and formed of the elements which enter into the composition of this organ.

255. Vegetations commonly take place from parts which have been previously the seat of inflammation, or long-continued irritation of any kind. Hence they are frequently formed upon the surface of the glands or prepuce after long-continued balanitis or posthitis, and upon the cicatrices, or the surfaces of old constitutional ulcers upon the skin. The inorganic forms of vegetation may be removed at once with the ligature or the knife; if voluminous, red, or inflamed, local depletion by means of leeches is of service. In operating upon the latter kind of vegetation, we must take care that all inflammation is subdued before we have recourse to the knife, experience

having proved that their removal, when painful or inflamed, frequently gives rise to the extension of the disease, and the vegetations themselves are soon reproduced in greater numbers and of larger size.

256. The local applications to vegetations are occasionally serviceable; when they are painful or inflamed, a strong aqueous solution of opium is highly extolled by Desruelles;* when indolent, the mercurial ointment, solutions of the oxymuriate, sponging them with the solution of chloride of lime, and then dusting with calomel are all remedies which are very frequently successful. The nitrate of silver, sulphate of copper, or chloride of zinc, are useful when caustics are indicated. The remedy, however, which is more worthy of attention than any other is the muriate of gold, locally applied either in form of ointment or solution. The internal use of the chloride of gold may be resorted to, but not till it has been tried locally.†

257. When vegetations are clearly of venereal origin, or coincide with other constitutional symptoms of this disease, an internal mercurial treatment may be adopted; fumigations are, in these instances, most serviceable.

258. There is a species of excrescence rather than vegetation to which the term condyloma or crista galli is commonly applied, which is most usually situated

* R. Opii dur., 3 j.

Aquæ, ʒ j. M. ft. Lotio.

† The dose of the muriate of gold is $\frac{1}{15}$, $\frac{1}{10}$, or $\frac{1}{5}$ of a grain; its internal use requires great caution. In solution, it may be used of the strength of two grains to the ounce of water or more; in ointment, from four grains upwards to the ounce of lard.

in the vicinity of the anus, between the glans and prepuce, or on the external parts of generation in the female. Its essential character consists in a development or hypertrophy of the skin or mucous membrane, and the subjacent cellular tissue, which then forms a soft, flattened, indolent tumour, more or less elongated. Sometimes these tumours are red, painful, and excoriated, secreting an offensive pus, and at others perfectly indolent. They frequently depend upon an ulcer situated in the folds of the integument or mucous membrane. If they are in a state of inflammation or irritation, this is to be first subdued; friction may afterwards be made upon them with any of the mercurial ointments previously recommended, or with the ointment of the muriate of gold. Caustics may also be employed; in some circumstances a general mercurial treatment may be necessary. Ricord says that the treatment of condyloma must be the same as that of indurated chancre. When they resist all these means of treatment, and their size or situation present serious inconveniences, or impediments to the performance of certain functions, they must be removed with the scalpel or scissors.

SECTION XIV.

Of the Syphilitic Testicle.

259. THIS disease, termed also syphilitic sarcocele, occasionally appears as a secondary symptom of constitutional syphilis: it is clearly to be distinguished from that affection of the testicle, which succeeds to gonorrhœa, as well as from sarcocele, depending upon other causes not syphilitic. It is most frequently associated with other secondary diseases, as the syphilides, iritis, &c. When the testicle is affected, it gradually enlarges, becomes hard and heavy, and generally presents an uneven surface to the touch; the induration may also exist in the spermatic cord or epididymis.

260. Ricord most prudently observes, that in all the diseases of the testicles, which appear of a doubtful character, we must be extremely cautious in recommending amputation of the part. Dupuytren, in cases of this character, submitted his patients to a general mercurial treatment, and by this plan saved an immense number of testicles.

261. The internal treatment of the venereal testicle consists in a modified mercurial course, or the use of the iodide of potassium. Cullerier highly extols the latter remedy, and was very successful in its employ. The local treatment may be pretty much the same as that recommended for the gonorrhœal testicle, viz. local bleeding, fomentations, lotions, anodyne and mercurial friction, and when quite indolent, strapping with mercurial and ammoniacum plaster, or the plaster “de Vigo.”

SECTION XV.

Of Pains in the Bones.

262. THESE pains are among the tertiary symptoms of M. Ricord, and frequently precede the true syphilitic ostitis or periostitis. Full courses of mercury used to be prescribed for the relief of these pains; and such was even the practice of M. Ricord, but he considers they may be most advantageously treated by the iodide of potassium. Much, however, depends upon local treatment: this should consist of leeches over the seat of pain; if there be any heat of the surface, the repeated application of blisters, which are to be dressed with the opiate cerate, or mercurial ointment and opium. M. Ricord states that he has known nocturnal pains which have resisted all modes of treatment for months, yield almost magically to blisters. Occasionally the pains are so obstinate as not to yield to any of these modes of treatment; they then sometimes suddenly give way to cutting down upon the parts which is the seat of pain.

SECTION XVI.

Of Periostitis.

263. INFLAMMATION of the periosteum is frequently occasioned by a superficial inflammation of the bone beneath, which has caused an effusion between it and the periosteum, and the production of those tumours on the surfaces of the bones termed nodes. These tumours may remain indolent, be resolved, or terminate in abscess; on opening which the bone beneath is found in a state of denudation, carious, necrosed, or covered with granulations.

264. The earlier stages of periostitis demand a more or less active antiphlogistic treatment, proportioned to the degree and intensity of the inflammation: this is to be followed by blisters, the application of the tincture of iodine, at first diluted, and gradually used stronger, or Malapert's solution of the bichloride of mercury. When the disease remains perfectly indolent under the latter treatment, pressure by means of the emp. hyd. c. ammoniaco, or the emp. de Vigo is frequently successful. The internal treatment should consist of the iodide of potassium.

Ostitis.

265. The treatment of the earlier and more acute stages of ostitis should be the same as that of periostitis: local bleedings, blisters, the local application of mer-

cury in any of the forms before recommended, compression of the tumours caused by effusion, &c. in the latter stages, and the internal use of the iodide of potassium, the proto-ioduret of mercury, the iodide of iron, and the decoction of sarsaparilla, or that of Feltz. In the treatment of those diseases of the bones which are the result of ostitis, as caries and necrosis, M. Ricord relies almost implicitly upon the internal administration of the iodide of potassium: many forms of these diseases have given way quickly to the use of this remedy, which have resisted or been aggravated by mercurial treatment during an indefinite period of time. I have before stated that mercury which has such a marked influence over many forms of primary syphilis, and most of the secondary forms, has little or no influence over many of those varieties of disease which M. Ricord has termed tertiary; and it is precisely where the mercury loses its effect, that the iodide of potassium is so beneficial. The iodide of potassium, however great as are its virtues in certain forms of disease, cannot with advantage be substituted for mercury in others.

OF THE OPERATION FOR THE RELIEF OF PHIMOSIS.

266. Ricord divides the species of phimosis into the complete and incomplete, the permanent or temporary. The permanent may be congenital or acquired coexisting with a preternaturally long prepuce, one which in the normal condition of the parts does not completely cover the glans, or an excessive length of the frenum. This variety may also be complicated

with adhesions of the prepuce to the glans of various degrees of extent and firmness. The temporary or accidental phimosis is most commonly caused by chancres situated on the glans or prepuce; if these sores are placed upon the prepuce, this part becomes red, painful, and swollen, completely covering the glans, which remains in its natural condition. If, on the contrary, the chancre is situated in the glans, the phimosis is occasioned by its swelling and distension, which prevents the retraction of the prepuce, the latter part remaining healthy. In other forms both glans and prepuce are affected, when ulcers are situated on both organs, or when the ulcers exist at the base of the glans, where the mucous membrane is reflexed on the internal surface of the prepuce.

267. Phimosis is also very frequently occasioned by simple inflammatory affections of the glans and prepuce,* without the existence of chancres. It is associated also with various morbid conditions, as erysipelas, gangrene, balanitis, gonorrhœa, chancres, vegetations, herpes preputialis, perforation of the prepuce, or complete retention of urine. The accidental phimosis is more liable to take place when any congenital malformation of the prepuce or glans has previously existed.

268. Before resorting to an operation for the relief of phimosis, it is necessary to subdue the inflammatory symptoms upon which it depends, the removal of which frequently enables us to retract the prepuce

* Balanitis, posthitis, or balano-posthitis, bastane, or false gonorrhœa.

without performing the operation. If there is reason to suspect the disease is occasioned by chancres, it must be recollected that the reduction of the prepuce is not necessary to their cure ; and indeed it is a principle laid down by M. Ricord, that the operation, unless the risk of gangrene, &c. is imminent, should not be performed, whilst a chancre between the glans and prepuce exists. For the particular treatment of these complications I refer the reader to the article "Balanitis."

269. Permanent phimosis, with excessive length of the prepuce, demands the operation of circumcision, unless, (says M. Ricord,) we remedy one deformity by the production of another, in performing the old operation of merely slitting up the prepuce with the knife. If there exist between the glans and prepuce recent and not very firm adhesions, these should be removed by dissection ; when the adhesions are firm, it will be necessary only to circumcise as much of the prepuce as may leave free the meatus urinarius ; vegetations should be removed with the redundant portion of the prepuce. The old operation, which consists in merely slitting up the prepuce, and removing the angles from the divided prepuce on either side, is liable to many objections, the chief of which is the deformity which the operation occasions ; when this plan is deemed advisable, as it may be in persons who have naturally a short prepuce, M. Ricord removes a portion in the shape of the letter V, the apex of which corresponds to the base of the glans, the base or open part being taken from the body of the prepuce.

270. In most cases M. Ricord prefers the operation of

circumcision, which is to be performed in the following manner. The penis hanging in a relaxed state, a line is to be traced round it with ink, two lines in front of the base of the glans; this being done, the prepuce is to be drawn forwards, and fixed between the blades of a pair of dressing forceps, which are to be placed in front of the glans, and immediately behind the ink lines; the forceps are to be held perpendicularly and not transversely, and fixed in this position by an assistant. The operator then seizes the prepuce with his left hand and with a scalpel or bistoury, held in his right, cuts off that part of the prepuce, placed before the forceps, the latter serving as a guide for the direction of his incision. That portion of the mucous membrane, which has not been drawn forwards with the skin of the prepuce, is afterwards to be divided, with a view of preventing a secondary phimosis, or paraphimosis. The latter part of the operation is to be performed by dividing the mucous membrane with the scissors upon the dorsal aspect of the glans, and as far as its base; the two flaps thus made are to be dissected off on either side to the frenum, and removed with the latter by one stroke of the knife or scissors.

271. Some hemorrhage, from the dorsal artery of the penis, that of the frenum, or other small branches demands occasionally torsion of the arteries, or the use of the ligature. The penis should be covered with compresses soaked in cold water or the lead lotion, with the view of keeping down inflammation, and preventing erections. With the latter view also opiates with camphor should be administered.

272. The operation for the relief of paraphimosis

is so simple that it hardly needs description. The method of Ricord consists in dividing the whole of the strangulated portion of the skin, to an extent equal to the length of the glans penis, by a straight-bladed bistoury, introduced flatly, and the cutting edge then turned upwards.

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